The Democratic Class Struggle in Twenty Countries 1945-1990

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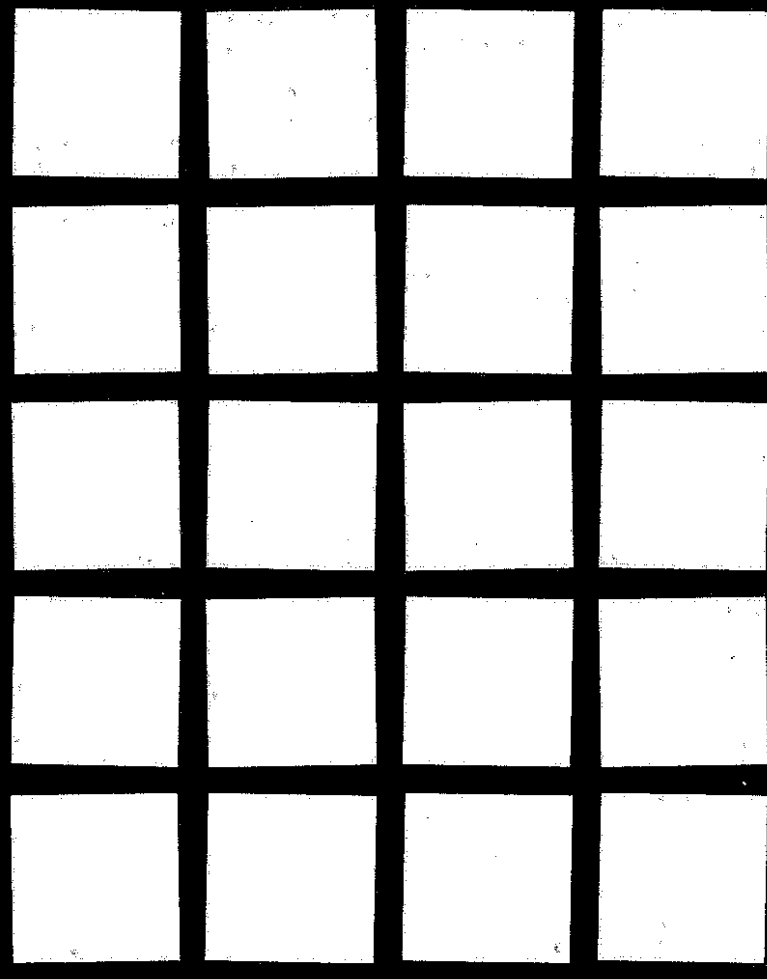

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The Democratic Class Struggle in Twenty Countries 1945-1990

The Democratic Class Struggle in Twenty Countries 1945-1990

De democratische klassestrijd
in twintig landen
1945-1990

Een wetenschappelijke proeve op het gebied
van de Sociale Wetenschappen

PROEFSCHRIFT

ter verkrijging van de graad van doctor
aan de Katholieke Universiteit Nijmegen,
volgens besluit van het College van Decanen
in het openbaar te verdedigen op
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Paul Nieuwbeerta
geboren op 26 januari 1964 te Utrecht

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For my parents

Manuscript committee:
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Paul Nieuwbeerta, April 1995

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1 Introduction

1.1 Class voting: the democratic class struggle

Almost without exception, surveys conducted in various Western industrialized nations after the Second World War established the importance of people's social positions - in particular class, religion and ethnicity - in determining party choice. Indeed, in all Western industrialized democracies, class has turned out to be one of the prime determinants of voting behaviour (Rose 1974; Franklin et al. 1992). In this study we focus on the relationship between class and voting behaviour in Western industrialized countries over the last decades. A central feature of this relationship is that people from the lower classes are more likely to vote for left-wing parties than are people from other classes. These left-wing parties prefer social change in the direction of greater equality between citizens, for example with respect to their labour contracts and income, whereas right-wing parties are against such changes (Lipset 1960). Thus, through their electoral behaviour, members of both the lower and the higher classes have the chance to further their interests. Members of the lower class will strive for the improvement of their labour contract and income, sometimes at the expense of the higher classes. Members of the higher classes will try to preserve the status quo, or even try to improve their own position. Thus, elections can - in terms of Anderson & Davidson (1943), Lipset (1960) and Korpi (1983) - be regarded as the platform of "the democratic class struggle". Or, as Przeworski and Spraque (1986) suggested, instead of fighting the class struggle on the barricades with real bricks, during elections manual class labourers can throw voting ballots as "paper stones" at the ruling classes.

Although in every Western democracy people in lower class positions vote more often for left-wing parties than do people from higher class positions, the strength of the relationship between class and voting behaviour has been shown to vary across countries. The Scandinavian countries and Britain, for example, have had relatively high levels of class voting during the past decades, whereas in the United States and Canada the class/vote relationship has been fairly weak. In Norway, for example, in 1949, 83 per cent of the manual workers voted for a left-wing political party, compared with 34 per cent of nonmanual workers (Sainsbury 1990). The corresponding difference for the United States in 1952 was much smaller: 48 per cent of the manual workers against 31 per cent of the nonmanual workers had a left-wing party preference (Abramson et al. 1990).

In addition, there is evidence of a decline in the levels of class voting in most countries in the postwar period. The same countries form a telling example. In Norway, by 1990, the percentage of manual workers voting for a left-wing political party had dropped to 54 per cent, while the figures for nonmanual workers had risen to 43 per cent (Sainsbury 1990). A similar pattern was true of the United States where, in 1990, 30 per cent of manual workers had a preference for a left-wing political party against 31 per cent of nonmanual workers (Abramson et al. 1990). Thus, in both countries the voting behaviour of manual and nonmanual workers became more similar between the points in time considered.

This study focuses on the relationship between class and voting behaviour in Western industrialized countries. In doing so, we follow a long line of studies that have examined this relationship, but we endeavour to improve on these by addressing more precise questions, applying detailed class measures, employing advanced methods of data analyses, and analysing data from many countries and over a long period. The aim of this study is threefold. The first aim is to describe the levels of class voting in the various Western industrialized countries in the postwar period. Many scholars have already examined differences in the levels of class voting across countries and the declines in the levels of class voting within countries (Kemp 1978; Andeweg 1982; Korpi 1983; Lipset 1983; Franklin 1985b; Dalton 1988; Inglehart 1990). However, the descriptive studies that have appeared so far, do not use current methods of analyses and measurement procedures, nor are they based on data from many countries and from long periods simultaneously.

The second aim of this study is to test specific explanations for between-country and over-time variation in levels of class voting. Various explanations for differing levels of class voting have been suggested. In this study we focus on three of the most influential arguments. The first argument suggests that various social and political characteristics of a country's population, such as individual income differences and extent of religious heterogeneity, affect the level of class voting in a country. The second explanation suggests that changes in the voting behaviour of the manual and/or nonmanual class, and thus in class-based voting, are due to the changing composition of these classes, while the third concerns the effects of intergenerational class mobility in a country on that country's level of class voting. All three explanations have not so far been tested, using current research techniques and measurement procedures on a large amount of high quality data.

The third aim of this study is to test micro-level assumptions that are implicit in the macro-level explanations discussed above. For example, the explanation linking differences in class mobility patterns of countries to differences in levels of class voting in these countries, assumes a relationship between class mobility

and individual voting behaviour. In this study we pay specific attention to this individual-level assumption.

1.2 Review of the literature on stratification and politics

The importance of class-based voting as a topic of investigation, and the relevance of the three aims of the present study, can best be illuminated by reviewing the literature on the relationship between social stratification and politics. Such a review will show the progress in this research area, but it will also identify the areas in which progress still has to be made.

We present the literature on the relationship between social stratification and politics, by dividing the history of this research area into three generations. These generations are comparable to those in which the history of comparative intergenerational social stratification and mobility research is commonly divided (Featherman et al. 1974; Kurz & Muller 1987; Ganzeboom et al. 1991; Ultee 1993). The three generations can be distinguished by the following criteria: (a) the articulation of research problems (b) the content of major hypotheses (c) measurement procedures (d) data collection and (e) methods of data analysis. We are aware that the three generations are not truly separated in time. Nevertheless it remains informative to review the history of this research area by contemplating these generations in developmental perspective. Doing this, the progress in measurement procedures and methods of data analysis might seem somewhat more influential than progress on research problems and hypotheses. This view however, as will be made clear in the next sections, is mistaken. The developments of new measurement procedures and methods of analysis have indeed offered opportunities to answer old substantive questions more adequately and to address new, more precise questions.

The main contribution to the first generation in this research area was made in the decades just after the Second World War. This generation can be characterized by the attention given to a broad range of research problems concerning the relationship between class and voting behaviour. The research problems were addressed by examining cross-tabulations based upon a limited number of datasets and using simple class measures. The second generation started in the 1960s and had as its main contribution the advancement of individual-level studies. These were characterized by the analysis of survey data and by the application of linear regression techniques. The third generation emerged around a decade ago, and can be seen as dealing with more precise research questions than those formulated in earlier generations. In addition, its extensive use of detailed and standardized class measures, large scale comparable datasets from many countries, and non-

linear research techniques marks this generation out from its predecessors. This third generation is very promising, but since it is still in its infancy it has yet to live up to these expectations.

In this section the three generations identified above will be discussed in more detail. During this discussion, it will become clear that on the topic of stratification and politics questions emerge with respect to at least three related areas. First, there are the descriptive questions concerning levels of class voting in Western industrialized countries over the postwar period. Second, questions arise as to how we can explain between-country and over-time variations in class voting. Third, there is the challenge of accounting for the effects of class and intergenerational class mobility on individual voting behaviour. Each of these areas will be examined in turn.

1.2.1 First generation

Studies on the relationship between social stratification and politics have been carried out since long before the Second World War. However, most of these classic studies were based on impressionistic data (Sombart 1976 [1906]; Sorokin 1959 [1927]) or on aggregated ecological data (Tingsten 1937; Siegfried 1913). The first research contributions on stratification and politics based on national representative surveys of the electorate appeared in the United States only after 1950 (Campbell et al. 1960). These were followed by studies based on surveys of countries in Western-Europe and other Western industrialized countries (Den Uyl 1951; Valen & Katz 1967; Alford 1963; MacRae 1967; Butler & Stokes 1974). Such studies were characterized by the fact that they dealt with a large variety of research problems. In the first place, they tested empirically the claim of earlier studies that in most countries a relationship existed between people's social position and their voting behaviour. When it became clear that this claim was supported, descriptive questions about the strength of this relationship and about its variation over-time and across countries were asked. In addition, hypotheses were suggested concerning the explanations of over-time and between-country variation in class voting. In general, however, the formulations were - especially relative to the hypotheses advanced by the third generation - imprecise. This was partly due to the state of theorizing at that time, but also to the relatively crude measurement procedures and the simple methods of data analysis that were used in this period. The studies from the first generation of survey research on stratification and politics were characterized by a dependence on cross-tabulations, and by simple examination of percentages in these tables.

Descriptions of class voting

The first generation of research on stratification and politics began by asking whether a relationship existed between an individual's social and economic position and his voting behaviour. Consequently, many monographs and articles published in the 1950s and 1960s on this topic include tables that cross-classify income, education, or occupation against voting behaviour (Svalastoga 1979; Lipset & Zetterberg 1956). For all countries examined these studies showed that people in lower social positions are more likely to vote for left-wing political parties than people in higher classes.

Since studies were conducted in various countries, it became possible to make cross-country comparisons of the strengths of links between people's class position and their voting behaviour. However, making such comparisons of separate studies of different countries was often problematic. For example, in some studies personal income was used as a measure of people's social and economic position, whereas in others education or occupation was used. Moreover, even when researchers used the same type of measure, classifications often varied from the very detailed to the very crude. Thus, Lipset (1960) in one of the first studies to display class voting tables integrating data from different countries (Britain, France and Italy) did not present a single standardized measure of levels of class voting. Similarly, the international comparative studies by Rose & Urwin (1969) and by Rose (1974) brought together tables on the influence of people's social position in many countries, but without a standardized measure of class voting.

Alford (1963, 1967) made the first major attempt at a truly comparable cross-national analysis. He presented data from four Anglo-American countries (Australia, Britain, Canada, and the United States), while using a measure of people's social and economic position that was comparable cross-nationally and over-time. In order to get such a measure he collapsed various occupations or classes into a dichotomous manual/nonmanual class distinction. The manual class comprised semi- and unskilled workers both in industry and in agriculture, while the nonmanual class included large proprietors, petty bourgeoisie and farmers, and also professionals, administrators, managers, and routine nonmanual employees. Members of the manual and nonmanual classes were found to differ with respect to their labour contract, income, and prestige, with nonmanual classes generally in a better position than the manual. This manual/nonmanual class distinction became the standard measurement procedure in cross-national or trend studies of the first generation. All studies showed that people from the manual class were more likely to vote for left-wing parties than were people from the nonmanual class. There seem to have been two reasons why class, and not income or

education became the prime tool for comparative and over-time research. The first is that a person's class is a better discriminator of his political interests and his voting behaviour then any of the other measures. The second reason is that information about respondent's class is more often comparable than information on respondent's income or education in the available survey data.

Alford also proposed an index to measure the strength of the relationship between class and voting behaviour in a country for cross-national and over-time analyses. Although various alternative measures for the level of class voting in a country were suggested (see e.g., Campbell et al. 1960), the index proposed by Alford (1962) became the standard in studies on this topic. The so-called "Alford index" is obtained by taking for a two by two table cross-classifying class (manual/nonmanual) by party voted for (left-wing/right-wing), the difference between the percentage of manual workers that voted for left-wing political parties on the one hand and the percentage of nonmanual workers that voted for these parties on the other.

Applying this index, Alford investigated the levels of class voting in Australia, Britain, Canada and the United States (Alford 1963, 1967). After his study, it took some years before more cross-national studies on the relationship between class and voting behaviour appeared that use standardized measures of the strength of that relationship. Indeed, only since the 1970s have researchers presented comparable data, class schemes, and measures on class voting on a dozen of countries (Books & Reynolds 1975). Lenski (1970: 362) and Lijphart (1971: 162) presented data for a considerable number of Western industrialized countries surveyed around the 1960s. A decade later, Korpi (1983: 35) presented data showing differences across eighteen countries in the 1970s. Recently, Lane & Ersson (1991: 94) corroborated this finding for sixteen countries during the 1980s. All these first generation studies, showed that substantial differences between countries in their levels of class voting existed in the postwar period, with the Scandinavian countries and Britain having the highest levels of class voting, and the United States and Canada the lowest.

In addition to cross-national analyses, first generation studies also examined trends in the levels of class voting within countries. Alford's (1963: 103) pioneering study examined trends in class voting in four Anglo-American democracies in the period between 1936 and 1962. Later this study was updated and extended to other countries and other periods (Abramson et al. 1990; Franklin 1985a, 1985b; Baker et al. 1981; Stephens 1981; Sainsbury 1987). Lipset (1983: 505) presented trend data for four countries in the period 1948-1980 and Inglehart (1990: 260) updated these data for five countries over the period 1947-1988. In addition, Lane and Ersson (1991: 94) compared the levels of class voting in the 1950/60s with that in the 1970/80s for eleven countries. In general, these studies provided

evidence of a downward trend in class voting in all Western democratic countries. This was true even for the United States, a country with a traditionally low level of class voting (Abramson et al. 1990).

Explanations of variations in class voting

When the results of the descriptive studies of the first generation indicated that cross-country differences in levels of class voting existed and that trends occurred, various explanations of these differences were suggested. We will discuss two of these explanations.

First of all, variations in the levels of class voting were explained with reference to variations in the social and political characteristics of countries. A review of this literature yields a long list of concrete hypotheses accounting for a country's level of class voting at a certain point in time. Explanatory factors include income differences among the inhabitants of a society (Alford 1963), the religious and ethnic heterogeneity of a society's population (Lipset & Rokkan 1967; Lijphart 1979), the mean standard of living of a nation's citizens (Kerr et al. 1960), the percentage of workers that are members of labour unions (Korpi 1983), and the politization of class issues in a nation (Alford 1963). Explanations based on social and political characteristics were, however, weakly - that is by using bivariate analyses - empirically tested in studies of the first generation. Limits on comparable data available in this first generation, both on class voting and on the various explanatory variables, did not allow for strong tests. For this reason, most studies came up with only tentative conclusions.

A second explanation prominent in the first generation for variations in class voting among countries, invokes effects of varying intergenerational class mobility patterns. This explanation was already touched upon by Sombart (1976 [1906]) when he maintained that the class struggle in the United States would be stronger were that country to have the same intergenerational mobility pattern as Britain or Germany. Lipset & Zetterberg (1956), Campbell and his colleagues (1960), Alford (1963), and Lenski (1966) also examined the effect of class mobility. They suggested as a general hypothesis that the more mobility there is in a society, the lower the level of class voting is. When this hypothesis was tested, however, the received wisdom in mobility research was that the overall pattern of class mobility appears to be much the same in the industrial societies of various Western nations (Lipset & Bendix 1959; see also Lipset & Zetterberg 1956). On this basis, explanations implying that class-based voting differed in strength between countries because the mobility patterns differed between these countries had to be rejected.

Effects of class mobility on individual voting behaviour

The attention given to the effect of a country's mobility pattern on that country's level of class voting by scholars of the first generation was fed by the results from analyses at the individual-level. Particular attention was given to the effects of an individual's class mobility on that individual's voting behaviour (Lipset & Zetterberg 1956; Valen & Katz 1967; Campbell et al. 1960; Lipset 1960; Lopreato 1967; Hazelrigg & Lopreato 1972; Stacey 1966).

In doing so, some first generation scholars compared the voting behaviour of intergenerationally mobile class members with that of immobile class members (Andeweg 1982; Herz 1986). This strategy, however, did not offer possibilities to answer questions on the relative effects of people's origin and destination class on their voting behaviour (see: De Graaf & Ultee 1990). Other scholars did examine percentage figures from cross-tabulations of respondents' origin and destination classes by their voting behaviour. Lipset & Zetterberg (1956: 427-443) analysed these figures for West Germany, Finland and the United States, while Lipset & Bendix (1959: 66-72) examined the patterns in Norway and Sweden. In all of these countries except the United States, upwardly mobile persons tended to be more leftist than was the case for those who belonged to the middle class since childhood. Conversely, in the United States, people who had moved upwards from the blue collar to the middle class turned out to be more conservative than those belonging to the middle class since birth. These findings for the United States, and similar findings in other (nonrepresentative) surveys (Lopreato 1967), provoked a long debate in the literature as to whether the so-called "overconformity" (Thompson 1971a) or "overidentification" hypothesis (Lopreato 1967) was correct (Thompson 1971a, 1971b; Åberg 1979; Barber 1970). The conclusion of this debate was that such findings were simply due to peculiarities in the datasets.

In the aftermath of this debate the generally accepted position was that for both the upwardly and downwardly mobile, political loyalties and attitudes tend to change in the directions appropriate to their new status, resulting in political behaviour that is in between that of their old status and that of their new status (Barber 1970: 36). The expression "between" is vague. However - as we will see - scholars of the second and third generations have formulated more precise hypotheses on the effects of individual class mobility on voting behaviour.

The first generation also produced hypotheses on the so-called "contextual" effects of intergenerational class mobility. When scholars stated macro-level hypotheses like "the higher the level of class mobility in a country, the lower the level of class voting", it was often unclear how that macro-hypothesis was deduced from micro-level assumptions. The most direct way was to assume a composition effect. Such an effect presupposes that countries differ in the relative

number of mobile and immobile class members, and moreover that the mobile and immobile differ in voting behaviour. In addition, contextual effects of class mobility were assumed. According to these contextual effects, immobile persons were held to change their political behaviour because of the mobility they see in others. Thus, if a stable manual worker in a certain country sees more of his class members becoming upwardly mobile, and if a stable nonmanual worker sees class members becoming downwardly mobile, then stable workers will be less likely to show their typical voting behaviour. Consequently, the level of class voting in that country will be lower (Lipset 1960; Campbell et al. 1960; Janowitz 1970; see also: Turner 1992). Although an interesting proposition, this contextual hypothesis was not tested by empirical research in the first generation.

1.2.2 Second generation

Studies from the second generation of research on social stratification and politics are characterized by the use of linear regression techniques. These were introduced into the social sciences around 1960 and their main effect was that the questions asked became more precise. Despite the possibilities of such techniques, the second generation made only a small contribution to research on the relationship between class and voting behaviour. Instead, political science research during this period was characterized by a focus on "social-psychological" explanations of individual voting behaviour, while "sociological" explanations received less attention. The aim was to increase the amount of variance in voting behaviour explained by adding variables to the equation, rather than to explain the strength of the relationship between class and voting behaviour. Furthermore, in social stratification research generally, questions about the political consequences of stratification and mobility were given low priority. Nevertheless, where they were studied, the analyses were more sophisticated than those of the first generation, and linear regression or path models replaced simple analyses of cross-tabulations.

Descriptions of class voting

The new regression techniques offered a better possibility of analysing the effects of class, while controlling for the effects of other factors, than tabular analyses. Most of the relevant second generation studies showed that class - even when controlling for other factors like religion and education - had a substantial effect on voting behaviour, in the sense that lower classes were more apt to vote for a left-wing political party than were higher classes (McAllister & Kelley 1982;

Franklin 1985a, 1985b). Scholars of this generation also used path models to get a better insight into the influence of people's origin class and their current class on their voting behaviour (Knoke 1973; Kelley & McAllister 1985; Van Deth & Geurts 1989).

However, only a small number of studies in the second generation dealt with describing differences between countries or trends within countries in levels of class voting (Kemp 1978). One exception, published in 1992, was the study by Franklin and his colleagues on electoral change in twenty countries. In this study linear regression models on voting behaviour (left/right) were estimated for all countries, including as explanatory variables social characteristics such as class (manual/nonmanual), religion and value orientations. However, because the operationalization of variables was not always comparable between countries, and since for the different countries different variables were included in the analyses, no conclusions about cross-country differences in the effects of class on voting behaviour could be drawn (see: Nieuwbeerta & Ultee 1993). Furthermore, because for each of the countries only three datasets were analysed (one for the 1960s, one for the 1970s, and one for the 1980s), conclusions on trends could only be drawn tentatively.

Explanations of variation in class voting

Curiously, although the second generation paid hardly any attention to the description of levels of class voting in Western industrialized countries in the postwar period, they did advance many explanations for trends in these levels. These explanations differed from those given in the first generation, when variations in class voting were predominantly deduced from a class perspective and from interest theories. Researchers working in the second generation followed the idea that "classes are dying" and suggested that other factors were becoming important determinants of individual voting behaviour. They claimed that, when the composition of societies differed with respect to these other factors, this might explain variation in class voting. An example of such thinking is Inglehart's theory on value change (Inglehart 1977, 1990; Inglehart & Rabier 1986). Inglehart assumed that due to increasing wealth after the Second World War, more and more people could be characterized as post-materialist. For post-materialists new issues, like protection of the environment, rather than the old class issues, would become important for their voting behaviour. In addition, the theory assumed that new cohorts would have more people with a post-materialistic value orientation than would older cohorts. In this way, a process of generational replacement could explain a decline in class voting in post-industrial societies. The concept of

generational replacement is also prominent in other studies (Dalton et al. 1984; Franklin et al. 1992). These explanations of variations in the levels of class voting have only been tested indirectly. Few attempts have also been made to directly test the macro-explanations for differences between countries.

Effects of class mobility on individual voting behaviour

The main contribution of the second generation was at the micro-level. In the first generation it was unclear whether hypotheses on the effects of mobility referred to the effect of a person's origin class plus the effect of a person's destination class, or to an effect of mobility per se, net of the effects of origin and destination class. In the second generation questions were rephrased into specific questions on effects of mobility per se on voting behaviour, and questions on the relative effects of people's origin and destination class on their voting behaviour. Furthermore, when examining the effects of class mobility on individual voting behaviour, studies in the first generation examined percentage figures in cross-tabulations. Doing so, it is difficult to detect whether the voting behaviour of the mobile is closer to that of their destination class than to that of their origin class. Furthermore, it is difficult to examine whether mobility effects per se have an impact on people's voting behaviour. To be able to investigate this adequately, it is necessary to distinguish whether, in addition to the additive effects of people's origin and destination class, there also is a separate interaction effect of upward or downward mobility. Scholars from the second generation started to utilize formal models including such interaction effects (Knoke 1973; Jackman 1972a; Turner 1992). First, formalized models were used that were originally developed by Duncan to determine the effects of mobility on fertility (Duncan 1966: 91; Blau and Duncan 1967: 128-40, 361-99). In these models voting behaviour was the variable to be explained, while origin, destination and a term for interaction between origin and destination were explanatory variables. The main conclusion of studies in the second generation was that the voting behaviour of the mobile and immobile can best be explained by the combined effects of their origin and destination class. That is, no mobility effect per se is necessary to explain the voting behaviour of mobile class members.

1.2.3 Third generation

The study of voting behaviour in Britain by Heath and his colleagues in 1985 can be regarded as the first major contribution to the third generation of research on

stratification and politics. In general, research of this ongoing third generation focuses on social stratification and mobility. Researchers recognized the applicability of measurement procedures and analysis techniques common in mobility research, to questions on the relationship between class and voting behaviour. Thus, they began to employ these tools in research into this area. The use of a detailed cross-nationally comparable class scheme, the application of (log-)odds-ratios, and the application of nonlinear techniques characterize studies of the third generation of research on class and voting behaviour, and distinguish them from studies in the two earlier generations. As a result, these later studies dealt with new or more specific questions. Furthermore, they continue to generate better answers to old research questions. Consequently, the research of the third generation again covers a wide range, addressing descriptive questions on levels of class voting, suggesting new explanations, and investigating the effects of class mobility on individual voting behaviour.

Descriptions of class voting

Studies from the first generation identified substantial differences in class voting between countries and showed that a significant decline in class voting had occurred in many countries. When examining this between-country and over-time variation, the Alford index was applied. However, scholars of the third generation argued that measures of the strength of a relationship between two categorical variables - like class and voting behaviour - should be independent of variation in the distributions of these variables. Since variation in Alford indices might be due to their sensitivity to variation in the general popularity of political parties, third generation researchers proposed a measure of class voting unaffected by these changes (Heath et al. 1985). Specifically, they argued that the focus should not be on absolute levels of class voting, but on the so-called "relative" class voting, measured by odds-ratios or by log-odds-ratios (Heath et al. 1985; Thomsen 1987). These measures have in this context an advantage over other measures - like the Alford index - in that they measure the strength of the relationship between class and vote, independent of the general popularity of political parties.

Scholars of the third generation have also claimed that, with respect to measurement procedures, a more detailed internationally comparable class scheme was preferable to the manual/nonmanual class dichotomy. They have argued that the manual/nonmanual distinction hides variations in the compositions of the manual and nonmanual classes, and therefore obscures results when describing the relationship between class and voting behaviour. To overcome this problem, they introduced a class scheme - originally used in mobility research - that is compar-

able cross-nationally and over-time. This scheme was developed by Erikson, Goldthorpe & Portocarrero (1979), and by Erikson & Goldthorpe (1992). Since then this so-called "EGP" class scheme has frequently been used, first in mobility studies, and subsequently in studies on the relationship between class and voting behaviour (Evans et al. 1991). The advantage of this categorical class scheme over prestige or status measures of people's social position in a society when predicting peoples voting behaviour, is that using the latter measures the voting behaviour of farmers and other self-employed can not well be predicted.

Studies of the third generation of research on stratification and politics, not only borrowed measurement conventions from mobility research, but also techniques of data analysis. In mobility research, specific log-linear models were developed to describe patterns of association in a cross-classifying table, and to test whether differences exist between tables in the strength of the associations (Hauser 1978; Erikson & Goldthorpe 1992). These models and the odds-ratios on which they are based were introduced into research on the class/vote relationship by Heath et al. (1985). The application of such techniques is a central characteristic of studies of the third generation.

As suggested, the use of detailed standardized class schemes and techniques built on log-odds-ratios to describe levels of class voting of countries, is a quite recent innovation. The first studies were done by Heath et al. (1985, 1991), Weakliem (1989), and Evans et al. (1991), describing trends in class voting in Britain. The analyses in these studies investigated linear trends in the log-odds-ratios. In subsequent analyses proportional trends were examined, by using the so-called "uniform difference" models (Xie 1992; Erikson & Goldthorpe 1992). Hout et al. (1994) used these models to do analyses for the United States, Goldthorpe (1994) and Heath et al. (1995) for Britain, while Weakliem & Heath (1994b) applied this technique to an investigation of two extra countries. However, so far no trend analyses have been done for other countries, and no other cross-national comparisons have been made on relative levels of class voting.

Explanations of class voting

The main explanation of variations in class voting that has typically been forwarded in studies of the third generation, is one closely connected to the availability of a detailed class scheme in these studies. Recent research has suggested that variations in class voting can be explained by variations in the composition of the classes. The class structures of the countries show significant differences. In addition, the class structures have changed substantially over the last decades. It is therefore argued that the explanations for varying class voting

given by the second generation might be premature. For example, Heath et al. (1995) and Hout et al. (1994) have claimed that when taking into account detailed class schemes, and measures of relative class voting, no trends in class voting can be found for example in Britain or in the United States. Their claim is that variations in class voting, when measured by manual/nonmanual class distinction is due to changes in the composition of the manual and nonmanual classes. Thus, variations in class voting detected, when a manual/nonmanual class distinction has been applied could (to some extent) be an artefact of that dichotomous class scheme (Heath et al. 1985; Evans et al. 1991; Hout et al. 1994). That is, the decline in class voting can be caused by changes in the composition of the manual and nonmanual class and not by changes in the voting behaviour of the sub-classes of the manual and nonmanual class. This composition explanation, however, has not been tested by comparing trends in class voting with the manual/nonmanual class scheme and trends with a more detailed class scheme so far. It is therefore worthwhile to test such an explanation in this study.

Another explanation that figures in studies in the third generation invokes intergenerational class mobility. When scholars of the first generation tested the mobility explanation, i.e. the hypothesis that varying mobility patterns across countries were to some extent responsible for variations in class voting among these countries, they had to reject this hypothesis because they relied on findings showing the same patterns of class mobility in industrialized countries. However, later analyses on the same data (Miller 1960; Jones 1969; Hazelrigg 1974) did show differences in the mobility patterns of countries. Furthermore, third generation studies on intergenerational mobility patterns (Erikson & Goldthorpe 1992) showed that substantial differences between countries in their absolute mobility patterns existed. It therefore is again worthwhile to address the question: to what extent are differences in the pattern of mobility responsible for variations in relative class voting? To date, this question has only tentatively been addressed in studies of the third generation (De Graaf & Ultee 1987, 1990; De Graaf & Nieuwbeerta 1995), but third generation methods and measurement procedures make it possible to investigate it further.

Effects of class mobility on individual voting behaviour

The third generation has so far made major contributions to investigations of the effects of class mobility on individual voting behaviour, an area which was inadequately studied during the second generation. Hope (1971) and Sobel (1981) revealed that the parametrization of the linear models typically used in the second generation did not follow the central sociological idea that it is the stable or

immobile members who define the norms, values and behaviour patterns of a class (De Graaf & Ultee 1987, 1990; Clifford & Heath 1993: 3). The importance of taking the various types of immobile persons as the reference had already been suggested by Sorokin (1959 [1927]: 509-10), who argued that "If we want to know the characteristic attitudes of a farmer, we do not go to a man who has been a farmer for a few months, but go to a farmer who is a farmer for life". Even better, we would argue, go to a farmer who has been born and bred a farmer. Hope (1971) and Sobel (1981) showed that simple additive models confuse the effects of people's destination class with those of mobility per se. Both came up with substantively more appropriate parametrizations. Hope's so-called "diamond model", that was applied by Thornburn (1979) among others in analyses of the effects of class mobility on voting behaviour, was shown not to be the appropriate parametrization (Sobel 1981), but Sobel's (1981, 1985) so-called "diagonal mobility" model (a specific type of non-linear regression model) was. This diagonal mobility model provided a means of assessing the relative importance of two identically categorized variables (e.g., origin and destination class) for a dependent variable, as well as an estimate of the effect of any combination of categories. Using such a technique it became possible to assess whether mobility per se has consequences above and beyond the additive effects of origins and destinations, as claimed in a number of early theoretical arguments (e.g., Janowitz 1970; Lipset 1960). These models also enabled a distinction to be made between the effects of upward and downward mobility. For these reasons, it is now generally recognized that diagonal mobility models are the most appropriate for analysing the effects of class mobility on voting behaviour (Heath et al. 1991: 99).

De Graaf & Ultee (1987, 1990), analysing data for the Netherlands, were the first to apply these models to data on mobility and voting behaviour. Since then other scholars have also used these models. Weakliem (1992), for example, analysed data from five countries, Clifford & Heath (1993) data from Britain, and Breen & Whelan (1994) data from Ireland. Studies investigating the effects of intergenerational class mobility on individual voting behaviour using the diagonal models applied to data from other countries and longer periods, are an obvious next step in the third generation.

1.3 Research questions in this study

Our review of the literature on stratification and politics has shown that significant progress has been made with respect to the precision of research problems, hypotheses, measurement procedures, data collections and methods of data analy-

Table 1.1. Characteristics of studies describing variations in class voting

	First generation (...-1970s)	Second generation (1960s- ...)
Questions	Are there differences between countries in absolute class voting? and: Are there trends in absolute class voting within countries?	Are there differences between countries in absolute class voting? and: Are there trends in absolute class voting within countries?
Class Measurement	Manual/nonmanual classes	Manual/nonmanual classes, more detailed class schemes
Techniques	Crosstabulations Alford index: percentage differences Eyeballing	Crosstabulations, linear regression
Data	Limited number of countries, short period	Long term trends in single countries; Differences between countries in single period
Examples of descriptive studies	Alford (1963), Lenski (1970), Lipset (1983), Korpi (1983)	Kemp (1978), Franklin et al. (1992)

sis. However, the review has also shown that some relevant questions remain understudied, or have to date only been addressed using inadequate measures, data, or methods. In this study we aim to improve on the existing literature by addressing relevant questions and by using up-to-date and appropriate research designs. The specific research questions that are addressed in the present study are introduced below.

1.3.1 Descriptions of class voting

Descriptive studies on the relationship between class and voting behaviour have developed significantly over-time. The main developments in studies of Western industrialized countries are summarized in Table 1.1. In studies of the first generation, the descriptive questions addressed focused on levels of absolute class voting, using simple cross-tabulations predominantly based on manual/nonmanual-class schemes. Testing whether differences between countries in class voting existed or whether trends had occurred in the levels of class voting, was limited to "eyeballing" the obtained measures of class voting for the different countries or

Table 1.1. (Continued)

Third generation (1980s-...)	This study
Are there differences between countries in relative class voting? and: Are there trends in relative class voting within countries?	To what extent did the level of relative class voting differ across countries? and: To what extent was there a decline in the levels of relative class voting in these countries?
Standardized, detailed class schemes (EGP classes)	1. Manual/nonmanual classes 2. EGP classes
(log-)odds-ratios loglinear models	1. Linear regression, log-odds-ratio (Thomsen index) 2. Loglinear models, log-odds-ratio (kappa index, parameters loglinear models)
So far: trends in single countries	1. 324 cross-tabulations, from 20 countries, 1945-1990 2. 113 datasets from 16 countries, 1956-1990
Heath et al. (1985, 1991, 1995), Goldthorpe (1994), Hout et al. (1994), Weakliem & Heath (1994b)	1. Chapter 3 2. Chapter 6

periods. In the second generation only a few studies dealt with descriptive questions. Subsequently, developments in methods of data analysis, and new measurement procedures enabled scholars of the third generation to rephrase the central research questions. Instead of focusing on the absolute levels of class voting, they formulated questions on the levels of relative class voting. To describe relative levels of class voting detailed standardized cross-nationally comparable class measures were used. In addition, techniques especially designed to deal with measures of relative class voting (i.e. log-linear methods) were used to test whether significant between-country differences and over-time variation existed. Third generation scholars argue that, although differences and trends in absolute class voting might exist, it is not clear whether differences and trends in relative class voting exist. Furthermore, they argue that descriptive studies using a detailed class scheme might yield different results from studies applying a simple manual/nonmanual class scheme. In their research the hypothesis of no change in levels of class voting has survived. However, the third generation has resulted in only a limited number of studies dealing with trends. In fact, the only studies done (Heath et al. 1995; Hout et al. 1994) focused on trends in Britain, France and the United States. Thus, so far no studies describing and comparing the

relative levels of class voting in other countries have been done. The present study aims to fill this gap by addressing two descriptive research questions about levels of relative class voting:

> *To what extent did levels of relative class voting differ across democratic industrialized countries in the postwar period?*, and:
> *To what extent was there a decline in levels of relative class voting in these countries over that period?*

These questions are addressed in two separate chapters. We first use the traditional manual/nonmanual class scheme. This enables us to analyse an unprecedentedly large set of data from twenty countries over the period 1945-1990. Subsequently, we address the descriptive questions using a detailed class scheme, analysing data for sixteen countries over the period 1956-1990. In these analyses we use log-linear techniques and a detailed class scheme, comparable cross-nationally and over-time (i.e. the EGP scheme). In this way, the present study aims to improve on studies of the first and the third generation. In addition, a comparison of the results of these two chapters gives an indication of the extent to which class composition effects explain differences in manual/nonmanual class voting.

1.3.2 Explanations of variations in class voting

Over the three generations many explanations have been suggested for between-country and over-time variations in the strength of the relationship between class and voting behaviour. The main characteristics of these studies are presented in Table 1.2. In studies of the first generation, the most prominent explanations were based on variations in the social and political characteristics of countries. However, to test such explanations first generation scholars could not rely on a large amount of data that could be compared cross-nationally and over-time (Alford 1963). For second generation studies this problem was less urgent, but even then tests of such hypotheses involved only a limited number of countries (Kerr 1990), or a few points in time (Korpi 1983; Lane & Ersson 1991; Franklin et al. 1992). Therefore, in studies of the second generation it was only possible to calculate bivariate correlations. Thus, this presented a challenge for studies of the third generation. Here many data and appropriate multivariate techniques became available. Despite this, so far only tentative attempts have been made to test the various explanations in third generation studies (Evans et al. 1991; Heath et al. 1991).

This provides an opportunity to address more comprehensively the following question in this study:

> *To what extent can differences across democratic industrialized countries and changes within these countries in levels of relative class voting be explained by differences between these countries and changes within these countries in their social and political characteristics?*

When addressing this question, we build on theories and results of studies of the three generations, but make progress in various ways. First, we directly correlate country characteristics with levels of class voting, where most earlier studies predominantly linked these variables on impressionistic data (Alford 1963; Lipset 1960; Franklin et al. 1992). Second, in answering the explanatory questions in this study we present analyses of data for a considerable number of countries and over numerous points in time. In this way it goes beyond earlier studies involving a limited number of countries and few points in time. This allows for multivariate analyses, and lessens the chance of not accepting hypotheses when in reality these hypotheses hold. Third, we use measures of relative level of class voting (odds-ratios) instead of the measures of absolute level of class voting that are characteristic of the first generation. Fourth, country-level hypotheses are deduced from theories based on individual voting behaviour. There are two reasons to choose individual-level theories. First, country-level hypotheses found in the literature seem to be unconnected, and it seems useful to attempt to incorporate these in a more general theory. A second reason is that the link between country characteristics and the level of class voting in a country is often seen by researchers as simple and straightforward. However, a closer look at their arguments reveals that this is not the case. To derive hypotheses that link country characteristics with a country's level of class voting, several assumptions have to be made at the individual level about the relationship between a person's class and his voting behaviour. Furthermore, various assumptions have to be made that link the micro- with the macro-level.

The second explanation dealt with in the present study has been suggested by, among others, Heath et al. (1991), Hout et al. (1993) and Goldthorpe (1994). These scholars posit that in industrialized countries declines in the levels of class voting, when measured by a manual/nonmanual class distinction, can - at least to some extent - be explained by changes in the composition of these two classes. During the last decades the class structure has undergone substantial changes.Among these have been changes in the composition of the manual and the nonmanual classes. Within the nonmanual class sizeable changes have occurred in the size of its various sub-classes: farmers, large proprietors, petty bour-

Table 1.2. Characteristics of studies explaining variations in class voting

	First generation (...-1970s)	Second generation (1960s-...)
Questions	Does country A, that has a higher level of class voting than country B, have a higher or lower score on country characteristic X than country B?	Is there a bivariate correlation between country characteristics and countries levels of class voting?
Explanations/ Hypotheses	1. Social and political characteristics of countries 3. Mobility explanation	Value orientations
Questions: on effects of mobility on class voting	To what extent would the level of class voting in the USA be different from that in Germany, if these countries had the same mobility pattern.	Is there a relationship between the percentage of intergenerationally mobile persons in a country and the level of class voting in a country?
Class Measurement	Manual/nonmanual classes	Manual/nonmanual classes, more detailed class schemes
Techniques	Comparing cross-tabulations	Crosstabulations/ linear regression
Data	Small number of countries and years	More countries and years
Examples of explanatory studies	1. Lipset & Bendix (1959), Alford (1963), Lipset & Rokkan (1967) 3. Sombart (1976 [1906]), Lipset & Zetterberg (1956), Alford (1963), Lenski (1966)	Inglehart (1977, 1990), Franklin et al. (1992)

geoisie, service class workers (professionals, administrators and managers), and routine nonmanual workers. In recent years many countries have seen the service class grow substantially relative to the other nonmanual sub-classes. In addition, within the manual class a significant change has occurred in the relative size of the skilled, and unskilled manual groups and the agricultural labourers. While the

Table 1.2. (Continued)

Third generation (1980s-...)	This study
Is there a correlation between characteristics of countries and their levels of class voting, when controlling for other country characteristics?	To what extent can differences across countries and changes within countries in class voting be explained by variation in these countries' 1. social and political characteristics, 2. class composition, and 3. mobility patterns?
Macro-micro-macro explanations: 2. composition explanation 3. mobility explanation	1. Social and political characteristics 2. Class composition explanation 3. Mobility explanation
To what extent can differences in class voting between countries be explained by differences in mobility patterns between the countries?	To what extent can differences in class voting between countries be explained by differences in mobility patterns between the countries?
Standardized, detailed class schemes (EGP classes)	1. Manual/nonmanual classes 2. EGP classes 3. EGP classes
Log-linear models / counterfactual analyses	1. Multi-level models 2. Counterfactual analyses / linear regression 3. Counterfactual analyses / non-linear regression
So far: single countries	1. Aggregated country dataset: 324 cross-tabulations from 20 countries, 1945-1990 2. Individual dataset: 113 surveys from 16 countries, 1956-1990 3. Individual dataset: 113 surveys from 16 countries, 1956-1990
2. Heath et al. (1991), Evans et al. (1991) 3. De Graaf & Ultee (1990)	1. Chapter 4 2. Chapter 5 3. Chapter 9

relative percentage of skilled workers has grown, the percentage of unskilled workers has diminished. These changes in the composition of the manual and nonmanual classes may account for declining levels of class voting, as measured by the manual/nonmanual distinction. For example, members of the service class tend to be more left-wing than some other nonmanual sub-classes, like the petty

bourgeoisie and farmers. Consequently, a relative growth of the service class would cause the nonmanual class to become more left-wing, and the level of class voting in a country to decline. This could happen without any of the sub-classes changing their political behaviour.

The class composition explanation has been supported by some empirical evidence. For example, Heath et al. (1991), using the manual/nonmanual class distinction, have identified a decline in class voting in Britain over the period 1964-1987. Applying a more detailed class scheme, they found only trendless fluctuation in the level of class voting. Similarly, using a detailed class categorization, Hout et al. (1994) found no systematic trend in the level of class voting for the United States in the period 1948-1992.

In this study we first test whether changes in the composition of the classes offer an explanation for the decline in manual/nonmanual class voting within a sizeable number of industrialized countries. We then test whether the class composition explanation can be extended, by hypothesizing that differences in the (manual/nonmanual) class voting across countries can be explained by differences in the composition of the manual class and the nonmanual class across these countries. In this way, the following research question is addressed:

To what extent can differences across democratic industrialized countries and changes within these countries in levels of relative class voting, when measured by the manual/nonmanual class distinction, be explained by differences between these countries and changes within these countries in the composition of the manual class and nonmanual class?

A third explanation we focus on in this study concerns the macro-level effects of intergenerational class mobility on class voting. Intergenerational class mobility occurs when people become members of a class that is different from the class their parents belonged to. Countries differ substantially in their patterns of intergenerational class mobility (Erikson & Goldthorpe 1992). Several scholars have suggested that differences between countries and developments within countries in the amount of intergenerational class mobility might help to explain cross-national and over-time variation in levels of class voting (Campbell & Kahn 1952; Dahrendorf 1959; Alford 1963; Abramson 1972; Lipset 1960; De Graaf & Ultee 1987). In the first generation such hypotheses were tested by comparing the percentage of mobile people in countries with the absolute level of class voting in these countries. In the second generation this macro-level explanation was no longer part of the research agenda. The techniques and measurement procedures, and the large amount of high quality data that are available in the third generation, however, offer a good possibility to test this explanation thoroughly. To

this end, in our study we answer the following questions:

To what extent can differences across democratic industrialized countries in levels of relative class voting be explained by cross-country differences in patterns of intergenerational class mobility?, and:
To what extent can changes over-time in levels of relative class voting within democratic industrialized countries be explained by changes within these countries in patterns of intergenerational class mobility?

1.3.3 Effects of class mobility on individual voting behaviour

To address the question on the macro-effects of class mobility in a country on class voting in that country, we pay attention to the effects of intergenerational class mobility on individual voting behaviour. The link between class mobility and class voting is often regarded as a direct one, i.e. the level of intergenerational class mobility is assumed to influence the level of class voting directly at the country-level. For example, Alford (1963: 118) hypothesized that the higher the number of intergenerationally mobile persons in a country, the lower that country's level of class voting. However, as De Graaf & Ultee (1990) have shown, it is by no means straightforward to deduce predictions about the extent to which a country's level of intergenerational class mobility has an effect on the level of class voting in that country. Auxiliary assumptions at the individual-level are required. These individual-level assumptions concern the effects of class mobility on the voting behaviour of both intergenerationally mobile and immobile class members.

Research on the effects of mobility on individual voting behaviour has a long history. As can be seen in Table 1.3, where the main characteristics of three generations of studies on this topic are summarized, it started by looking at simple cross-tabulations, cross-classifying the voting behaviour of persons by their origin and their destination classes. The central question addressed in these studies was: do intergenerationally stable members vote differently from mobile class members? The analyses were, typically for the first generation, done on relatively small datasets. This has the drawback that only a small number of intergenerationally mobile persons were analysed. A central hypothesis of this first generation was that - both upwardly and downwardly - mobile class members have voting behaviour that fall in between those of their origin and destination classes. In the second generation of research on class and voting behaviour the questions could be formulated more specifically. The question then was whether mobile people's voting behaviour is closer to their origin than to their

Table 1.3. Characteristics of studies examining the effects of class mobility on individual voting behaviour

	First generation (...-1970s)	Second generation (1960s-...)
Questions	Do intergenerationally stable and mobile class members differ in voting behaviour? Are there contextual effects of class mobility?	What are the (relative) effects of respondent's class and father's class on voting behaviour?
Hypotheses	Overconformity hypothesis (for upwardly mobile), "in between" hypothesis	Weak economic hypothesis, Status hypothesis
Class Measurement	Manual/nonmanual classes	Manual/nonmanual classes, more detailed class schemes
Techniques	Examining figures in cross-tabulations	Anova / linear regression
Data	Limited number of surveys with limited number of cases	Surveys from single countries
Examples of studies on this topic	Lipset & Bendix (1959), Barber (1970), Lopreato (1967), Lipset (1960), Janowitz (1970)	Abramson & Books (1971), Knoke (1973), Thorburn (1979), Turner (1992)

destination class. This question was answered by applying linear regression techniques. However, as became obvious in the third generation, these techniques are inappropriate to answer this question. In the third generation adequate models to deal with such a question began to be developed and applied. These models enabled the provision of answers to the research question from the second generation, and also offered the possibility of answering the question of to what extent the upwardly mobile are relatively closer to their origin class than are the downwardly mobile, and to what extent older persons are closer to their destination class than are young mobile. In this study we use the methods of the third generation to address the following question:

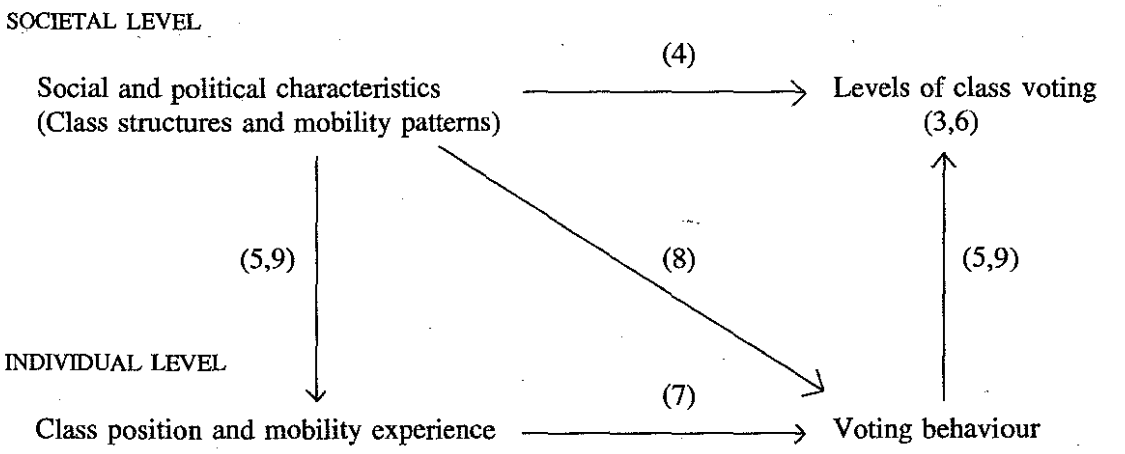
What are the effects of individual intergenerational class mobility on the voting behaviour of intergenerationally mobile people?

Table 1.3. (Continued)

Third generation (1980s-...)	This study
Is the voting behaviour of mobile persons closer to that of their destination class than to that of their origin class?	1. Is the voting behaviour of mobile persons closer to that of their destination class than to that of their origin class? 2. Do stable class members in countries with low rates of mobility differ in voting behaviour from stable members in countries with high rates of mobility?
Status maximization hypothesis, Weak, and strong economic hypothesis, Acculturation hypothesis	1. Status maximization hypothesis; Weak, and strong economic hypothesis; Acculturation hypothesis 2. Effects of rates of inflow and outflow mobility
Standardized, detailed class schemes (EGP classes)	1. EGP classes 2. EGP classes
Diagonal mobility models	1. Diagonal mobility models 2. Multi-level models
Survey from limited number of countries	1. 113 surveys from 16 countries, 1956-1990 2. 113 surveys from 16 countries, 1956-1990
De Graaf & Ultee (1987, 1990) Clifford & Heath (1993), Weakliem (1992), De Graaf et al. (1995), Breen & Whelan (1994)	1. Chapter 7 2. Chapter 8

However, as already argued in studies of the first generation, it is not only mobile people who are affected by class mobility. Those who are immobile, i.e. those with no change in their class position with respect to that of their parents, can be expected to be influenced by the extent of class mobility in their environment (Blau & Duncan 1967: 440; Abramson & Books 1971; Thorburn 1979; De Graaf & Ultee 1987). It might be that the rates of mobility in a person's social context have an effect on that person's voting behaviour. For example, it has been suggested that the more upwardly mobile there are in a society, the less likely the stable manual class workers are to vote for left-wing political parties. This hypothesis has been raised several times, especially in the first generation. However, to test this contextual hypothesis it is necessary to have data from many "contexts". In early studies, such data were lacking. In this study we investigate the contextual effects of class mobility on voting behaviour, focusing on the effects on the voting behaviour of the immobile class members, leaving the effects on the mobile class members aside. Thus, we address the following re-

Figure 1.1. Macro-micro-macro link dealt with in this study, and organization of this study (Numbers of Chapters are given between brackets)



search question:

What are the contextual effects of intergenerational class mobility in a country on the voting behaviour of intergenerationally immobile persons?

It should be noted that this study's prime focus is on the explanation of variation in levels of class voting. To explain this phenomenon at the country-level, we have to pay attention to the explanation of individual voting behaviour. We like to stress that our prime interest is not with the explanations of why people vote as they do, or with explanations of the variation in individual voting behaviour.

1.4 Organization of this study

Having formulated our research questions, the organization of this study - summarized in Table 1.4 - is as follows.

After we discuss the data and the operationalizations used in this study to answer the research questions in Chapter 2, we address the descriptive research questions in Chapter 3. This chapter describes the extent to which levels of class voting have differed across democratic industrialized countries during the postwar period. In addition, it describes the extent to which a decline in the levels of class voting in these countries has occurred during this period. When describing the

levels of class voting, classes are distinguished according to the manual/nonmanual class scheme.

In Chapter 4 we test a first explanation of variation in class voting between countries and over-time. The chapter addresses the macro-level question of to what extent differences between democratic industrialized countries and changes within these countries in levels of manual/nonmanual class voting can be explained by variation in the social and political characteristics of these countries.

In Chapter 5 we test a second explanation for between-country and over-time variation in class voting, using the manual/nonmanual class scheme. According to this explanation variation in the composition of the manual and the nonmanual class to some extent can be held responsible for variation in manual/nonmanual class voting.

Subsequently, in Chapter 6 the levels of class voting in democratic industrialized countries in the postwar period are again described, but now applying the EGP class scheme. The answers to the descriptive questions of this chapter allow us to revise conclusions on the extent of country differences and changes over the course of time, drawn when using the manual/nonmanual class distinction.

The third explanation for between-country and over-time variation in class voting can be found in variation in the patterns of intergenerational class mobility in countries. This explanation is tested in Chapter 9. This macro-level explanation, however, presupposes effects of class mobility on the voting behaviour of individual class members.

Therefore, before the macro-level explanation for variation in class voting with variation in class mobility is tested, in Chapter 7 we examine the effects of individual class mobility on the voting behaviour of intergenerationally mobile persons. In addition, in Chapter 8 we investigate the contextual effects of class mobility on the voting behaviour of immobile class members.

In the last chapter, Chapter 10, we summarize and discuss the findings of this study, as well as making suggestions for future research.

2 Data and operationalizations

2.1 Scope of analysis

To address the research questions of this study, data from several countries, and spanning several decades will be analysed. The first basis for the selection of particular countries and periods stems directly from our research questions. These questions concern changes within countries in the strength of the relationship between social class and voting behaviour. Therefore, it is necessary that the countries in this study can be considered as having been, over a substantial period of time, basically democratic with regard to the criteria of both political rights - such as the right to participate in free and competitive elections - and civil liberties - such as freedom of speech and association (Lijphart 1984: 37). Based on these criteria, Lijphart (1994: 2) has argued that, of all the countries that were registered at the United Nations in 1980, twenty seven can be defined as such durable democratic countries.[1]

Another, more practical basis for choosing countries to include in this study concerns the availability of relevant and appropriate data. Initially, we intended including all twenty seven countries meeting the criteria for democratic government postulated by Lijphart. However, for pragmatic reasons we dropped seven of them - Costa Rica, Iceland, India, Israel, Japan, Malta and New Zealand - because no sufficient data pertaining to these countries were found. Our final set of twenty countries included all countries in Western Europe (except Iceland), two countries from the continent of North-America (Canada and the United States), and Australia. In Table 2.1 all the countries in the final sample are listed.

Table 2.1 also contains information about the histories of the political situations in the selected countries. The first column of Table 2.1 gives the first year in which ministers were accountable to an elected parliament. The second and third column give respectively the years when the universal adult male and female franchise were introduced. The figures show that in almost all countries, parliamentary accountability of ministers began at the end of the nineteenth century. In some countries this was before the institutionalization of the universal male franchise. Only in two countries -Denmark and Finland - was the universal franchise for women institutionalized at the same time as male franchise. In the other countries it was granted some or many years later.

The period under investigation in this study begins in 1945. This marked not only the end of the Second World War, but also the beginning of a long period of

Table 2.1. Parliamentary responsibility and universal male and female franchise, and national elections in twenty countries

	Parliamentary Responsibility	Male Franchise	Female Franchise	Number of national elections 1945-90	Years national elections 1945-90
Australia	1892	1901	1902	19	1946-90
Austria	1918	1907	1918	14	1945-90
Belgium	1831	1893	1948	15	1946-87
Britain	1832	1918	1928	13	1945-87
Canada	1867	1917	1918	15	1945-88
Denmark	1901	1901	1915	19	1945-88
Finland	1917	1906	1906	13	1945-87
France	1875	1848	1944	14	1945-88
Germany	1918	1869	1919	11	1949-87
Greece	1844	1877	1952	7	1974-90
Ireland	1923	1918	1918	14	1948-89
Italy	1919	1912	1946	11	1946-87
Luxembourg	1868	1919	1919	10	1945-89
Netherlands	1848	1917	1919	14	1946-89
Norway	1884	1897	1913	12	1945-89
Portugal	1822	1911	1974	7	1975-87
Spain	1976	1869	1976	5	1977-89
Sweden	1917	1909	1921	14	1948-88
Switzerland	1848	1919	1971	11	1947-87
United States	1789	1870	1920	23	1946-90

Sources: Ultee et al. 1992: 273; Mackie & Rose 1991; Lane et al. 1991: 111; Lijphart 1994: 5-6.

relative undisturbed democracy for most of the countries examined here. Furthermore, it is only since 1945 that survey data have become available for most countries about the relationship between social class, class mobility and voting behaviour. The decision to take the year 1990 as the end of the period under analysis, was mainly based on practical considerations. Data after 1990 were only scarcely available at the time the analyses for this study were being carried out.

However, the entire period from 1945 until 1990 could not be considered for all twenty countries. Portugal, Greece and Spain could only be included after these countries became democratic. Furthermore, not every country could be included over the total period 1945-1990 in each analysis presented in the next chapters. The inevitable data restrictions faced when investigating so many countries and such a long time period, meant that for some countries, some data for all or a part of the time span were unavailable. Thus, each chapter of this study

clearly indicates which countries and periods were included in the analyses, and which were left out.

2.2 Data

In the analyses two kinds of data were employed for the twenty countries under investigation in the postwar period. To answer the descriptive research questions on levels of class voting, and to address the explanatory question at the country-level, aggregated country data about the levels of class voting and several social and political characteristics of the countries were analysed. To answer the explanatory questions concerning the effects of varying class compositions and of varying class mobility patterns on the levels of class voting, individual-level data were used from national representative surveys of these countries.

Country Data

The aggregated country data includes information about the levels of class voting as well as on the explanatory factors for each of the twenty Western industrialized countries in each year since the end of the Second World War. These data were obtained from two sources: tables published in various articles and books, and tables calculated using data from several national representative surveys available on tapes (i.e. our individual dataset).

To obtain measures for the level of class voting, we consulted the literature and data archives for pertinent information about the twenty countries during the years 1945-1990. If relevant studies had been conducted every year in each country and the results of these surveys were still available, this would yield twenty by forty six observations. However, as expected, for a majority of country-year points we were unable to find information about the level of class voting. In total for all twenty countries, 324 tables cross-classifying class (manual/nonmanual) by party voted for (left-wing/right-wing) were found.[2] In Table 2.2 the numbers of tables we have for the various countries are given. In Appendix A the sources of these class voting tables are listed. On the basis of these data, the levels of class voting are described and explained in Chapters 3 and 4 of this study.

To test the explanations of differences between countries and changes within countries in the levels of class voting, data were collected from various sources on social and political characteristics of the countries under investigation since 1945. Specifically, data were collected for each year on the following country

Table 2.2. Number of class voting tables in aggregated country dataset per country and per period

	1945-1960	1961-1970	1971-1980	1981-1990	Total	Range
Australia	7	3	2	5	17	1946-90
Austria	-	1	1	3	5	1968-89
Belgium	-	1	9	10	20	1968-90
Britain	8	4	8	10	30	1945-90
Canada	10	2	-	1	13	1945-84
Denmark	6	3	10	10	29	1945-90
Finland	1	1	2	1	5	1958-87
France	4	3	8	10	25	1947-90
Germany	3	4	8	10	25	1953-90
Greece	-	-	1	9	10	1980-89
Ireland	-	1	7	10	18	1969-90
Italy	1	1	8	10	20	1953-90
Luxembourg	-	-	7	10	17	1973-90
Netherlands	1	4	10	10	25	1950-90
Norway	2	2	3	4	11	1949-90
Portugal	-	-	-	5	5	1985-89
Spain	-	-	1	5	6	1979-89
Sweden	3	3	3	3	12	1946-88
Switzerland	-	-	3	1	4	1972-87
Un. States	5	4	8	10	27	1948-90
Total	51	37	99	137	324	1945-90

characteristics that in earlier studies were assumed to affect class voting and will be examined in Chapter 4: the standard of living per capita, the income share of the richest twenty per cent of the population, the percentage of intergenerationally mobile people, the union density, the level of ethnic-linguistic and religious heterogeneity, the prominence of class as a political issue, and the percentage of manual workers. Full sources for these predictors are given in Appendix A, as well as information about the procedures used to deal with missing values.

Individual data

To answer the explanatory questions on the effects of class composition and class mobility on levels of class voting, individual-level survey data were used. As listed in Table 2.3, these come from 113 datafiles from sixteen out of the twenty selected countries. These files are available on tapes. For Greece, Luxembourg, Portugal, and Spain no useful tape data were found. Extracts were taken from the

Table 2.3. Number of surveys in individual dataset per country and per period

	1956-1970	1971-1980	1981-1990	Total	Range
Australia	2	2	6	10	1965-90
Austria	-	1	3	4	1974-89
Belgium	-	1	-	1	1975
Britain	3	2	8	13	1964-90
Canada	-	-	1	1	1984
Denmark	-	5	1	6	1971-81
Finland	-	2	-	2	1972-75
France	-	1	-	1	1978
Germany	2	11	6	19	1969-90
Ireland	-	-	2	2	1989-90
Italy	1	1	1	3	1968-85
Netherlands	1	7	7	15	1970-90
Norway	1	2	4	7	1965-90
Sweden	-	1	1	2	1972-90
Switzerland	-	2	-	2	1972-90
United States	6	9	10	25	1956-90
Total	16	47	50	113	1956-90

original 113 datafiles and were merged into a single datafile, titled "International Stratification, Mobility and Politics File". This file contains standardized information about the relevant variables. More detailed information about this file and the original datasets is given in a codebook of the file (Nieuwbeerta & Ganzeboom 1995) and in Appendix B of this study.

Three criteria governed inclusion of datafiles in this study. First, because the research questions concern the levels of class voting in countries, data had to come from surveys based on probability samples of a country's population. Second, data had to include information about the relevant variables needed for addressing the research questions. Thus, social class and voting behaviour of respondents were needed, in addition to information about class of parents. The third criterion concerned the quality of the data. As a quality control, we checked whether the distribution of the voting behaviour variable in our dataset was comparable to official elections results. Furthermore, we examined whether there were implausible shifts in the class distribution over-time within each country. Of the 119 datafiles we started with, six did not meet our criteria and were left out of the analyses.[3] Consequently we were left with 113 datafiles, and - due to the fact that some surveys were held in the same year in the same country - with 103 different country/year combinations.

To address the research questions on the effects of class mobility on individual

Table 2.4. Left-wing political parties in twenty countries, 1945-1990[4]

Australia:	Australian Labor Party (0101); Communist Party (0110); Democratic Labor Party (0121); Queensland Labor Party (0122);
Austria:	Socialists (0201); Communist Party (0205); Democratic Progressive Party (0212);
Belgium:	Belgian Socialist Party (0303); Communist Party (0310); Walloon Workers' Party (0317); Labour Party (0324); Flemish Socialist Party (0330);
Britain:	Labour Party (2406); Communist Party (2410); Social Democratic and Labour Party (2418); Social Democratic Party (2420);
Canada:	Communist Party - Labour Progressive Party (0406); New Democratic Party (0408);
Denmark:	Social Democrats (0504); Communist Party (0509); Socialist People's Party (0516); Left Socialist Party (0518);
Finland:	Social Democrats (0601); Finnish People's Democratic Union (0613); Social Democratic League of Workers and Smallholders (0615); Democratic Alternative (0622);
France:	Socialist Party (0701); Communist Party (0709); Other Extreme left (0718); Unified Socialist Party (0719); Other Left (0727);
Germany:	Social Democrats (0802); Communist Party (0828); Action for Democratic Progress (0850);
Greece:	Communist Party of Greece (0904); United Democratic Left (0925); Christian Democracy (0933); Communist Party of Greece (0935); Pan - Hellenic Socialist Movement (0937); Greek Left (0945);
Ireland:	Irish Labour Party (1108); Communists (1109); National Progressive Democrats (1118); Workers' Party (1119); Socialist Labour Party (1121); Democratic Socialist Party (1123);
Italy:	Socialist Party (1303); Communist Party (1311); Social Democrats (1323); United Socialist Party (1331); Manifesto/Party of Proletarian Unity for Communism (1332); Proletarian Democracy (1337);
Luxembourg:	Social Democratic Party (1502); Communist Party (1507); Social Democratic Party (1519); Independent Socialists (1521);
Netherlands:	Communist Party (1710); Labour Party (1723); Pacifist Socialist Party (1727); Democratic Socialists '70 (1730);
Norway:	Labour Party (1904); Communist Party (1909); Socialist People's Party (1914);
Portugal:	Communist Party (2002); Socialist Party (2004); Democratic Movement (2005); Movement of the Socialist Left (2006); Popular Democratic Union (2007); Revolutionary Socialist Party (2012); Union of the Socialist and Democratic Left (2013); Socialist Unity Party (2015);
Spain:	Socialist Party (2101); Communist Party (2102); Popular Socialist Party (2132); Spanish Labour Party (2133);
Sweden:	Social Democrats (2205); Communist Party (2210);
Switzerland:	Social Democrats (2305); Communist Party (2309); Autonomous Socialist Party (2317);
United States:	Democratic Party (2501); Socialist Labor Party (2515); Socialist Party (2517); Communist Party (2521).

voting behaviour, it is necessary to have reliable information about respondents' social classes and parents' social classes. In this respect a difficulty arises as to how cohabiting or married women are to be assigned to a social class. Most survey data available to us do not contain information about these women's own occupational and class positions, since they only comprise information about the class of the head of household. The apparent assumption is that if women are not the head of the household, their own occupational or class position is irrelevant for their voting behaviour. Furthermore, only a limited number of surveys contain information about the social class of mothers. These restrictions do not allow us to include women's and mothers' class positions properly in the analyses. In addition, it is theoretically unclear how the social positions of wives and mothers should be defined. De Graaf & Heath (1992) have shown that working women should not be assigned to social classes solely on the basis of their husbands' occupations or solely on the basis of their own occupation. For women and mothers, more complex operationalizations are required which take account of the interactions between husbands' and wives' occupations. To develop such a complex operationalization, however, would go beyond the aim of this study (see for a discussion on this topic: Sørensen 1994). Therefore, in this study we restrict ourselves to the analysis of men and only investigate the effects of fathers' class position on the voting behaviour of male respondents.

2.3 Operationalizations

Voting behaviour

To measure levels of class-based voting, it would be preferable to have data on the actual voting behaviour of respondents during specific elections in the surveys. However, because voting is confidential in democratic countries, we have to rely on indirect measures of voting behaviour. In the surveys employed in this study various such indirect measures are used as indicators for respondent's voting behaviour. In some surveys respondents were asked to name the political party they would vote for if there were a national election tomorrow. In other surveys respondents were asked to name the party they voted for at the most recent national election. In yet others respondents were asked which political party they preferred or identified with. The limitations introduced by such different measures of voting behaviour must be fully appreciated. However, various analyses using only surveys containing "voting behaviour" measures, and several analyses using only surveys containing "political preference" measures, did not result in significant different outcomes. Thus, we are confident that using these

different measures of voting behaviour in the analyses does not cause major problems. Indeed, we know of no study showing that the relationship between class and political preference is fundamentally different from that between class and respondents' voting behaviour.

In order to produce a classification of parties voted for that would allow cross-country comparison, we followed Bartolini & Mair (1990) and Franklin and his colleagues (1992), and dichotomized the political parties into left-wing on one side and right-wing on the other. This distinction can be seen as the most relevant distinction between political parties, when investigating class-based voting. To oversimplify, left-wing parties prefer a change in the direction of greater social equality, i.e. their policies are in favour of the manual classes, whereas right-wing parties are against such changes (Lipset 1960), i.e. their policies are in the interests of nonmanual classes.

In deciding whether a specific party should be included in the left-wing block, we followed the criteria given by Bartolini & Mair (1990: 42-43): "As far as our criteria for inclusion are concerned, only two general principles have been adopted: first, the systematic inclusion of all those socialist parties which are members of the Socialist International and of all those communist parties which were once members of the Communist Third International; second, the systematic exclusion of those recent and wholly new parties which concern themselves primarily with the "newpolitics" issues, environmentalism, civil rights, feminism, and so on, despite the fact that these parties often locate themselves on the ideological left, and occasionally further on the left than the historic class parties". Since according to these criteria hardly any left-wing voters would exist in the United States, for that country an exception to the criteria was made, and the Democratic Party was defined as left-wing party. Table 2.4 presents, for each country, a list of the political parties which were classified as left-wing in this study.

To give an impression of the electoral strength of the left-wing parties, Table 2.5 shows the mean percentages of people who voted for these parties at the national elections according to the official election results. Figures are presented for each of the twenty selected countries in the periods 1945-1960, 1961-1970, 1971-1980, and 1981-1990. The percentage of left-wing voters is relatively stable over-time within these countries. Differences across countries are more substantial. In some countries the number of left-wing voters exceeds fifty per cent (especially in Australia, Norway, Sweden) while in others (Canada, Greece (before 1967) and Ireland) it represents less than twenty five per cent of the electorate.

Table 2.5. Percentage left-wing voters at national elections in twenty countries, 1945-1990

	1945-1960	1961-1970	1971-1980	1981-1990
Australia	51	53	47	46
Austria	47	48	52	45
Belgium	40	35	30	30
Britain	47	45	39	30
Canada	14	15	18	20
Denmark	46	47	45	46
Finland	48	46	43	39
France	43	40	47	49
Germany	33	40	44	36
Greece	9	14	23	53
Ireland	10	15	14	12
Italy	40	46	51	49
Luxembourg	41	45	41	35
Netherlands	36	32	37	34
Norway	52	51	47	44
Portugal	-	-	55	43
Spain	-	-	44	50
Sweden	51	52	50	50
Switzerland	30	28	28	24
United States	47	52	43	44

Sources: Mackie & Rose 1991; Mackie 1991, 1992.

Social class

A manual versus nonmanual distinction is traditionally used in research on the relationship between social class and voting behaviour. The manual class comprises semi- and unskilled workers both in industry and in agriculture who can be seen as placing themselves to some degree under the authority and control of employers who hire their labour. The nonmanual class includes large proprietors, administrators, managers, and routine nonmanual employees. Members of the two classes differ with respect to their labour contract and income where nonmanual classes are in a better position than the manual.

In most analyses the manual/nonmanual distinction is used to measure the level of class voting. However, to test the class composition and the class mobility explanations, a more elaborate class scheme is necessary. This class scheme needs to fulfil three requirements. First, it has to distinguish between the most important social class positions. Therefore, a distinction between self-employed workers and

Table 2.6. Social class scheme: EGP categories

Title	Description
Nonmanual classes:	
Service class	Large proprietors; professionals, administrators and managers; higher-grade technicians; supervisors of nonmanual workers.[5]
Routine nonmanual class	Routine nonmanual employees in administration and commerce; sales personnel; other rank-and-file service workers.
Petty bourgeoisie	Small proprietors and artisans, with and without employees.
Farmers	Farmers, smallholders and other self-employed workers in primary production.
Manual classes:	
Skilled workers	Lower-grade technicians; supervisors of manual workers; skilled manual workers.
Nonskilled workers	Semi- and unskilled, nonagricultural manual workers.
Agricultural labourers	Agricultural and other workers in primary production.

employees, as well as a distinction between workers with different levels of skill and supervisory positions, should be taken into account. Second, the class scheme should be appropriate when testing the class composition explanation. Thus, the dichotomy between the manual and nonmanual classes has to be preserved so that relevant changes in the compositions of these classes in industrialized societies can be detected. Third, a more sophisticated class scheme should have been shown to be effective in analyses of the relationship between social class, class mobility and voting behaviour, as well as in comparative analyses of intergenerational class mobility.

The seven class version of a class scheme originally introduced by Goldthorpe for the Oxford Mobility Inquiry (Goldthorpe et al. 1978), and later elaborated by Erikson, Goldthorpe and Portocarrero (1979), and Erikson & Goldthorpe (1992: 38-39), fulfils the requirements outlined. In this scheme, for brevity's sake called EGP class scheme, individuals are categorized into a class based on their sector, self-employment status, and supervisory status. The derivation of this scheme is given in Chapter 3 of this study. The EGP class scheme has been useful in comparative studies of intergenerational class mobility (Ganzeboom et al. 1989; Erikson & Goldthorpe 1992), and in studies examining the relationship between

social class and voting behaviour in Britain (Heath et al. 1985; Evans et al. 1991). Nieuwbeerta & De Graaf (1992) have also applied this scheme in their analyses of the effects of class mobility on voting behaviour for the Netherlands.

The seven class version of the EGP class scheme distinguishes between the class categories given in Table 2.6. Respondents were coded into the EGP classes on the basis of data on their occupation, self-employment and supervisory status. Two steps were involved. First, the original occupation codes were recoded into the International Standard Classification of Occupation (ISCO) codes (ILO 1969). Second, these ISCO codes were translated into EGP-scores through the Ganzeboom et al. (1989) recoding scheme.

Manual/nonmanual class voting

The level of class voting in a country at a certain point in time can be operationalized in various ways. Traditionally, the so-called "Alford index" has been used (Alford 1962, 1963). In almost all cross-national and trend studies of the first generation of research on stratification and politics this Alford index was applied. The index is obtained by taking, for a two by two table cross-classifying class (manual/nonmanual) and voting behaviour (left-wing/right-wing), the difference between the percentage of manual workers that voted for left-wing political parties on the one hand and the percentage of nonmanual workers that voted for these parties on the other hand. Thus, if 80 per cent of the manual class vote for left-wing parties against 20 per cent of the nonmanual class, the Alford index takes the value 60.

However, the Alford index has several drawbacks. The most important one is that it is sensitive to changes in the overall percentage of a population voting for parties of a certain type (Korpi 1972; Robertson 1984; Heath et al. 1985). Therefore, differences between two Alford indices might not only be due to differences in the strength of the relationship between social class and voting behaviour, but also to differences in the overall popularity of political parties.

Recently, scholars of the third generation of research on stratification and politics have proposed alternative measures of the class/vote relationship (Heath et al. 1985; Thomsen 1987). They suggested using the odds-ratio or the log-odds-ratio as a measure of the level of class voting. These measures are insensitive to changes in the overall popularity of political parties. The odds-ratio for a two by two table of class against vote, is the odds for manual workers of voting left-wing rather than right-wing divided by the odds for nonmanual workers of doing the same. The log-odds-ratio is the natural logarithm of that odds-ratio. This log-odds-ratio can also be regarded as the log-odds for manual workers of voting for

Table 2.7. Hypothetical tables on the relationship between class and voting behaviour

Table A:

	Left-wing	Right-wing	
Manual class	40 80.0%	10 20.0%	50 100%
Nonmanual class	10 20.0%	40 80.0%	50 100%
All	50 50%	50 50%	100 100%

Alford index = 80.0 - 20.0 = 60.0
Thomsen index = log ((80.0/20.0)/(20.0/80.0)) = log(16) = 2.77

Table B:

	Left-wing	Right-wing	
Manual class	60 92.3%	5 7.7%	65 100%
Nonmanual class	15 42.9%	20 57.1%	35 100%
All	75 75%	25 25%	100 100%

Alford index = 92.3 - 42.9 = 49.4
Thomsen index = log ((92.3/7.7)/(42.9/57.1)) = log(16) = 2.77

a left-wing political party rather than a right-wing party minus the log-odds for nonmanual workers of voting in this way.[6] If voting behaviour is not dependent on class, the odds-ratio has the value of unity and the log-odds-ratio that of zero. The higher the odds-ratio and the log-odds-ratio is, the higher the level of class voting. Both measures have no upper bound.

In this study, we use the natural logarithm of the odds-ratio, instead of the odds-ratio, to measure levels of class voting in a country. One reason is that, if there is hardly a relationship between class and vote, a small change in the strength of

that relationship results in a small alteration in the odds-ratio. However, if this relationship is strong, a small change will result in a large alteration in this measure. Or in other words, a decrease in an odds-ratio from say 10 to 9 does not equal a decrease from 3 to 2. By using the natural-logarithm of the odds-ratio we adjust for these "floor effects". A related reason for choosing the log-odds-ratio instead of the odds-ratio, is that in our explanatory analyses it is assumed that explanatory variables have a multiplicative effect on the odds-ratios, which becomes an additive effect in the log-odds-ratios. This enables us to use standard logistic regression techniques to investigate the impact of the explanatory variables. As a tribute to the scholar who was one of the first to apply the log-odds-ratio in research on stratification and politics, we call this log-odds-ratio the Thomsen index (Thomsen 1987).

Since the advantages of the Thomsen index over the Alford index are central in debates between scholars from the first and the third generation, we illustrate these further by giving an example. For that end we presented Table 2.7 where two hypothetical class voting tables are shown.[7] In these tables it is assumed that the total population is comprised of the manual and the nonmanual classes, and that only two types of political parties - left-wing and right-wing - exist. In both tables it is assumed that the strength of the relationship between class and voting behaviour is the same. The only difference between the two tables is that the general popularity of the political parties differs. In Table B left-wing parties are (three times) more popular than in Table A, i.e. among both manual and nonmanual class members. Because the strength of the relationship between class and voting behaviour is the same, the measure of the level of class voting should take the same value in both cases. This is true for the Thomsen index. However, the Alford indices differ between the two tables. In Table A the index takes the value 60.0 and in Table B it is 49.4. Thus, this hypothetical example illustrates the sensitivity of the Alford index to changes in the general popularity of the political parties, and demonstrates one of the advantages of the Thomsen index.

However, it should be noted that in practice, for two by two class voting tables the advantages of the Thomsen index over the Alford index should not be overstated. The arguments given by Goodman (1975: 86), for example, suggest that it is only when the distribution of the general popularity of political parties or the distribution of social classes is more skewed than 25:75 or 75:25, that the Alford and Thomsen indices might yield substantially different conclusions. However, such distributions are unlikely in our dataset. As we have discussed above, it is only in Canada and Ireland that left-wing parties have less than 25 per cent of the votes. Furthermore, it is also the case that, in the postwar period, the percentage of manual workers has always been between 25 and 75 per cent in Western industrialized countries.

EGP class voting

Log-odds-ratios (which we labelled Thomsen indices) are not only useful when measuring the level of class voting in a country with a manual/nonmanual class scheme. They are also used to measure levels of class voting, when using a more detailed class scheme. When doing so, the advantage of the log-odds-ratio over the Alford index is more relevant. For example, when measuring the difference in voting behaviour between unskilled manual workers and farmers, in most countries both the voting and the class distribution are more skewed than 75:25.

When using the EGP class scheme that distinguishes between seven class categories, we need six log-odds-ratios to measure the differences in voting behaviour (left/right) between all the classes in a country in a specific year. One of the aims of the present study is to investigate differences between countries and changes within these countries with respect to class voting. Using six log-odds-ratios for every year in each country, would create problems of interpretation. We therefore also use a summary measure of the overall level of class voting, called the kappa index, that Hout and his colleagues (1994) have proposed. This kappa index is the standard deviation of the log-odds-ratios measuring the difference in voting behaviour between the detailed classes. This index reports a single standardized score which reflects the level of class voting for a particular country in a particular year or period, and provides a uniform metric for making cross-national and over-time inferences. However, a drawback of this measure is that it does not take into account that in some classes there are more respondents than in others, and thus some log-odds-ratios are more robust than others.

Therefore, we also use another way of measuring the level of class voting, when using the EGP class scheme. Using this method we examine parameters that result from specially designed loglinear models. These so-called "uniform difference" models, developed by Erikson & Goldthorpe (1992) and Xie (1992), provide a single parameter as measure of the level of EGP class voting for a country in a specific year. The models are fully equipped to examine the relationship between class and voting behaviour net of changes in the sizes of the classes and the popularity of the parties. Furthermore, these models are not influenced by there being different numbers of respondents in the classes of any dataset. We will pay more attention to this way of measuring levels of EGP class voting in Chapter 6.

3 Description of Manual/Nonmanual Class Voting

3.1 Introduction[1]

From the start of research on stratification and politics, studies have been concerned with the relationship between social class and voting behaviour. As discussed in Chapter 1, the first generation of studies on this topic were characterized by the use of a dichotomous manual/nonmanual class scheme. In addition, the focus was on the absolute levels of class voting, using the Alford index as a measure of the strength of the relationship between class and voting behaviour in a country. These first generation studies showed that in all Western democratic countries, members of the manual classes were more likely to vote for left-wing political parties than were members of nonmanual classes. They also revealed that the strength of the link between class and voting behaviour was different from country to country (Korpi 1983: 35; Lane & Ersson 1991: 94), and that declines in class voting occurred in most countries in the postwar period (Lipset 1983; Clark et al. 1993: 312).

Despite the weight of evidence on between-country and over-time variation in class voting, studies of the third generation have recently cast doubts on such assertions (Heath et al. 1985; Hout et al. 1993). Third generation scholars argue that the class scheme used in the studies of the first generation was - and remains - too crude to take relevant developments in the class structure in these countries into account. Furthermore, and for this chapter more importantly, they claim that the traditionally used measure of class voting, i.e. the Alford index, is sensitive to variation in the general popularity of political parties. Therefore, they argue, one should focus on levels of relative class voting instead of absolute class voting, and measure this by means of odds-ratios, or log-odds-ratios instead of Alford indices. When examining relative class voting using log-odds-ratios (Thomsen indices) different results might be obtained from those obtained in investigations of absolute class voting.

It is against this background that we raise the following descriptive research questions: *To what extent did the levels of relative manual/nonmanual class voting differ across democratic industrialized countries in the postwar period?*, and: *To what extent was there a decline in the levels of relative manual/nonmanual class voting in these countries over that period?*

We answer these questions using two different datasets. First, we analyse the

aggregated country data on levels of class voting in twenty countries in the period 1945-1990. Subsequently, we describe the levels of manual/nonmanual class voting by analysing the data from our individual dataset. This dataset contains data from 113 surveys from sixteen countries over the period 1956 until 1990. The analysis on the individual dataset offers the possibility to compare the results of this chapter with results from later chapters that also use this individual dataset. Furthermore, the individual dataset has the advantage that we were fully responsible for the dichotomization of voting behaviour into left-wing and right-wing and of classes into the manual and nonmanual.

In the next sections we address the descriptive research questions. In Section 2 we examine the extent to which the levels of class voting differ between countries, and in Section 3 the extent to which there was a decline in class voting in these countries. After having answered the descriptive questions in this chapter, we pay some attention in Section 4 to the question of what the results of our analysis would have been if we had focused on the levels of absolute class voting, i.e. when using the Alford index, and how these differ from the results when using the Thomsen index.

3.2 Differences between countries

Among the studies of the first generation are cross-national comparative analyses of levels of class voting. These studies focused on the level of absolute class voting in a country. Since Alford suggested an index to measure that level, this "Alford index" has become the standard measure in cross-national comparative studies. Using this index, Alford (1963) - in his comparison of four Anglo-American democracies during 1945-1962 - provided the first evidence of differences in class voting among Western industrialized nations. About a decade later, Lenski (1970: 362) and Lijphart (1971: 162) came up with a similar conclusion for a larger number of Western industrialized countries surveyed around 1960. Korpi (1983: 35) showed differences in Alford indices across eighteen countries in the 1970s, and Lane & Ersson (1991: 94) displayed a similar finding for sixteen countries during the 1980s.

In this chapter, as noted, our primary focus is not on the levels of absolute class voting. We instead focus on the differences between countries in the levels of relative class voting, i.e. measured by the Thomsen index. To describe the levels of relative class voting we start using data from our aggregated country dataset, that contains 324 tables cross-classifying class (manual/nonmanual) by party choice (left-wing/right-wing) for twenty countries in the period 1945-1990. On the basis of these cross-tabulations we calculated Thomsen indices as measures for the level of relative class voting in the countries in the various years. These Thomsen indices are present-

Table 3.1. Levels of class voting (measured by Thomsen index) in twenty countries, 1945-1990 (aggregated country dataset)

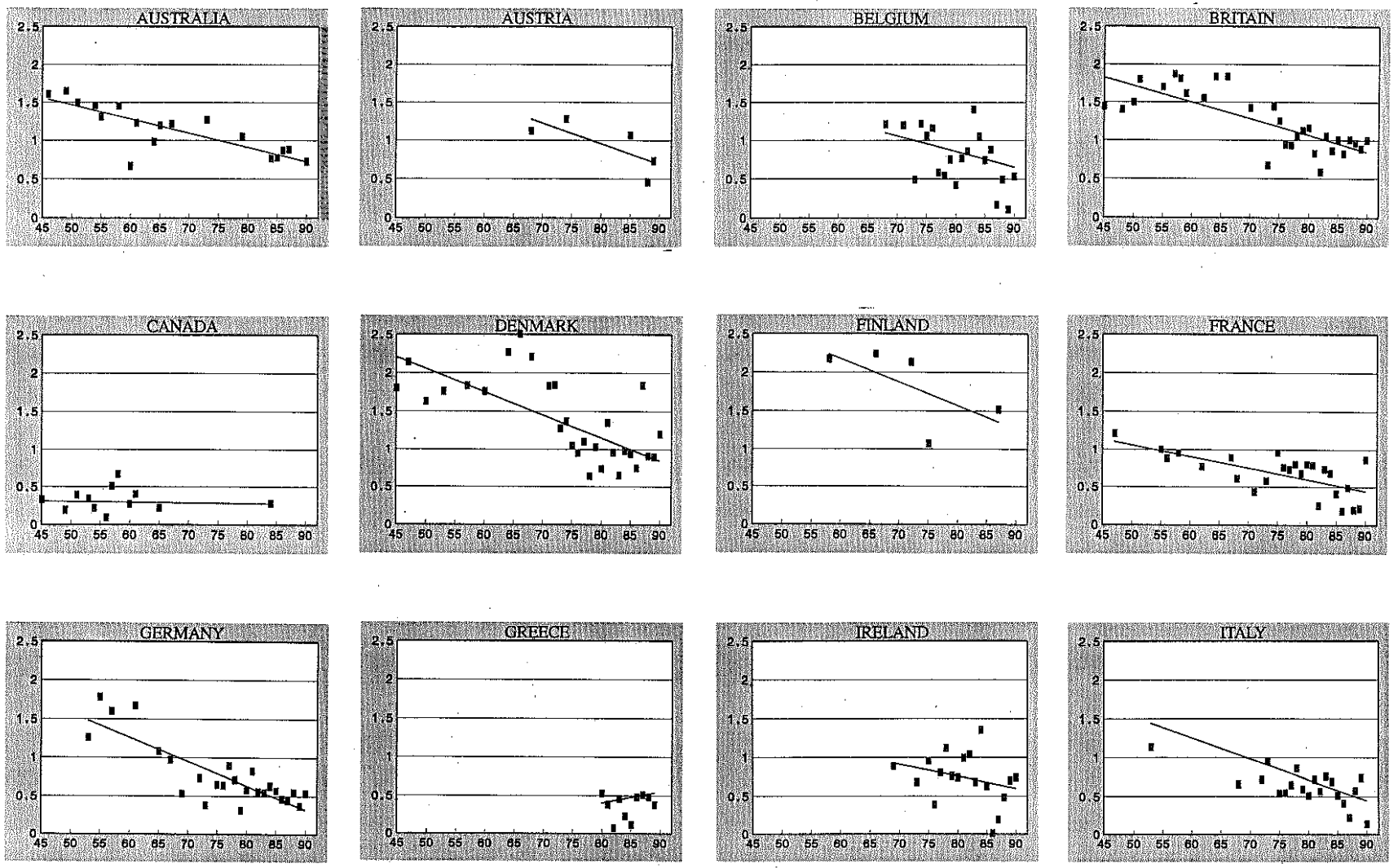
	1945-1960	1961-1970	1971-1980	1981-1990
Australia	1.38	1.22	1.16	0.80
Austria	-	1.12	1.28	0.76
Belgium	-	1.21	0.87	0.80
Britain	1.64	1.67	1.07	0.90
Canada	0.30	0.31	-	0.27
Denmark	1.82	2.33	1.18	0.97
Finland	2.17	2.24	1.60	1.52
France	1.01	0.76	0.72	0.48
Germany	1.55	1.06	0.61	0.55
Greece	-	-	0.53	0.47
Ireland	-	0.88	0.77	0.70
Italy	1.13	0.66	0.73	0.53
Luxembourg	-	-	1.10	0.86
Netherlands	0.61	0.65	0.94	0.68
Norway	2.39	1.38	1.43	0.84
Portugal	-	-	-	0.62
Spain	-	-	0.75	0.63
Sweden	2.26	1.73	1.57	1.36
Switzerland	-	-	0.82	0.80
United States	0.67	0.36	0.46	0.34
Mean	1.41	1.17	0.98	0.74
Std. deviation	0.66	0.59	0.33	0.30

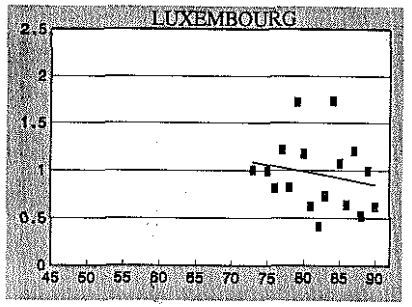
ed in the graphs of Figure 3.1. Second, in order to be able to compare the results in this chapter with results from subsequent chapters, we carried out our descriptive analyses on data from the individual dataset. On the basis of this dataset we constructed class voting cross-tabulations, and also computed Thomsen indices of the various years in the various countries.

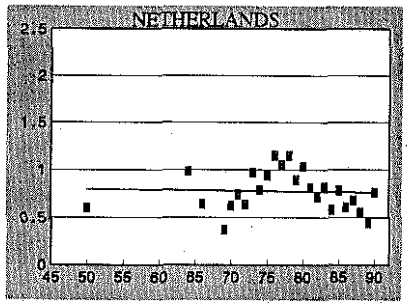
As a next step, to summarize the data and in order not to be too dependent on single cross-tabulations and thus open to the influence of peculiarities in the data, we calculated the mean value of the Thomsen indices of each country in each of the following four time periods: 1945-1960, 1961-1970, 1971-1980 and 1981-1990. The mean values on the basis of our aggregated dataset are presented in Table 3.1 and those from our individual dataset in Table 3.2. Since we have no data, except for the United States, for the period 1945-1960 in our individual-level dataset, that period is not included in Table 3.2.

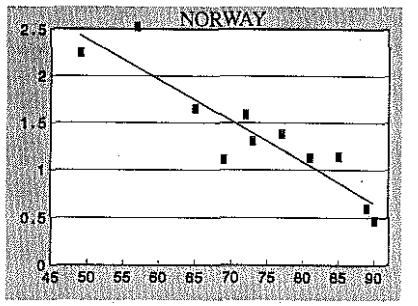
On the basis of these figures in Figure 3.1 and Tables 3.1 and 3.2, the descriptive questions on the levels of relative manual/nonmanual class voting in the twenty

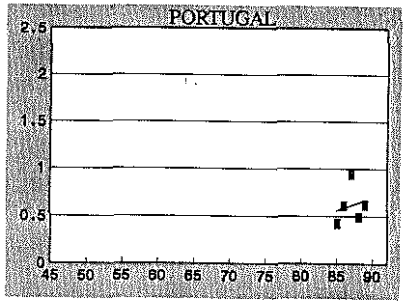
Figure 3.1. Figure of levels of class voting (measured by Thomsen index) in twenty countries, 1945-1990

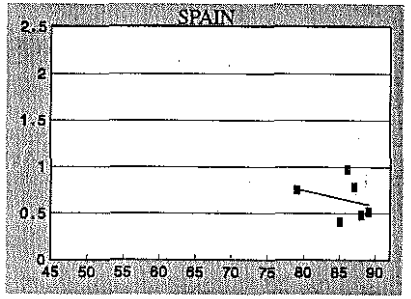


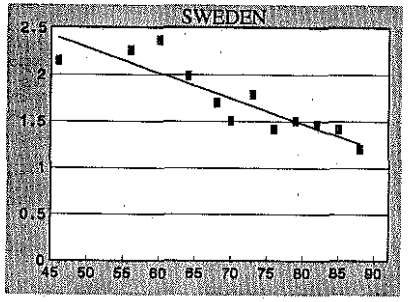

LUXEMBOURG
2.5
2
1.5
1
0.5
0
45 50 55 60 65 70 75 80 85 90

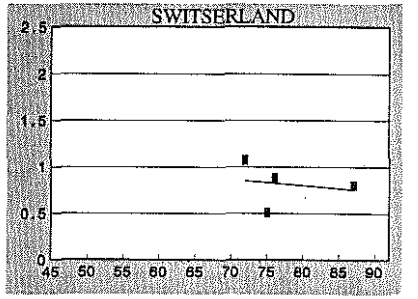

NETHERLANDS
2.5
2
1.5
1
0.5
0
45 50 55 60 65 70 75 80 85 90


NORWAY
2.5
2
1.5
1
0.5
0
45 50 55 60 65 70 75 80 85 90


PORTUGAL
2.5
2
1.5
1
0.5
0
45 50 55 60 65 70 75 80 85 90


SPAIN
2.5
2
1.5
1
0.5
0
45 50 55 60 65 70 75 80 85 90


SWEDEN
2.5
2
1.5
1
0.5
0
45 50 55 60 65 70 75 80 85 90


SWITSERLAND
2.5
2
1.5
1
0.5
0
45 50 55 60 65 70 75 80 85 90

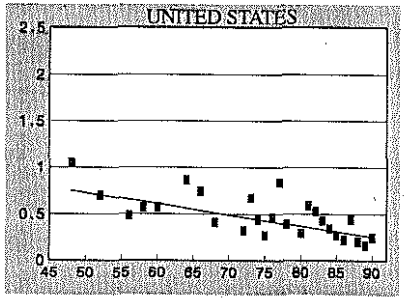

UNITED STATES
2.5
2
1.5
1
0.5
0
45 50 55 60 65 70 75 80 85 90

Table 3.2. Levels of class voting (measured by Thomsen index) in sixteen countries, 1961-1990 (individual dataset)

	1961-1970	1971-1980	1981-1990
Australia	1.34	1.37	0.87
Austria	-	1.55	0.94
Belgium	-	1.30	-
Britain	1.66	1.39	1.28
Canada	-	-	0.84
Denmark	-	2.11	2.11
Finland	-	2.22	-
France	-	0.96	-
Germany	0.84	0.92	0.74
Ireland	-	-	1.18
Italy	0.73	0.85	0.58
Netherlands	1.04	0.99	0.78
Norway	1.85	1.69	1.08
Sweden	-	1.81	0.98
Switzerland	-	1.25	-
United States	0.83	0.56	0.43
Mean	1.18	1.36	0.98
Std. deviation	0.40	0.47	0.41

countries in the postwar period are addressed. Our analyses confirm the findings of previous, more limited studies that use Alford indices. That is, also when examining levels of relative class voting, countries differ in the level of class voting. Furthermore, when countries are ordered on the basis of their levels of class voting, the ordering remains fairly stable over the four periods considered. The lowest levels of class voting are found in the United States and Canada. In these countries we find low positive Thomsen indices. This implies that manual workers vote more left-wing than nonmanual workers. However, the strength of the relationship between class and voting behaviour in these two countries - and especially in Canada - is low. The Thomsen indices of these countries rarely exceed 0.50. When ranking the countries on the basis of the Thomsen indices, a few countries have somewhat higher, but still relatively low levels of class voting. These countries are France, Greece, Ireland, Italy, Netherlands, Portugal, Spain, Switzerland. In all these countries, the Thomsen indices are rarely larger than one. Then follows a group of countries with intermediate levels of class voting. These countries are Australia, Austria, Belgium, Germany and Luxembourg. In these countries the Thomsen indices have predominantly a value between 1 and 1.5. Finally, in some countries we find relatively high levels of class voting, the Thomsen indices are higher than 1.5. These countries are the four Scandinavian countries and Britain. In the Scandinavian

countries the Thomsen indices are occasionally even higher than two.

It should be noted that differences between countries in the levels of class voting have become smaller over the last decades. This can be shown by investigating the standard deviation over the Thomsen indices across countries. For example, in Table 3.1, in the period 1945-1960, the standard deviation of the levels of class voting across countries had the value 0.66, while in the period 1961-70 it fell to 0.59. Subsequently, in the period 1971-80, the variation dropped to 0.33, and to 0.30 in the period 1981-90. A similar conclusion can be drawn from Table 3.2.

Summarizing the results of our between-country examinations, we can conclude that there is a clear indication of substantial differences in levels of relative manual/nonmanual class voting across democratic industrialized countries in the postwar period. This conclusion can be drawn on the basis of our analyses of both our aggregated country data and our individual dataset.

3.3 Trends within countries

Having described the differences between countries in levels of class voting, we next examine the changes over-time in levels of class voting within these countries. A pioneering study of trends in class voting, using the Alford index, was Kemp (1978). It demonstrated a reduction of the level of class voting in Australia during the 1945-1975 period. Others have also analysed trends in class voting for various individual countries. For example, Andeweg (1982) has analysed trends in the strength of the relationship between class and vote for the Netherlands, Abramson and his colleagues (1990) for the United States, and Listhaug (1989) for Norway. Some have shown a decline in the levels of class voting in several countries simultaneously. Lipset (1983) has presented evidence of a downward trend in Alford indices of Britain, Germany, and the United States between 1945 and 1980. A continuing decline has been supported by further analyses of data from the early 1980s (Clark et al. 1993: 313). In addition, Sainsbury (1987, 1990) has shown a decline in class voting in the Scandinavian countries, while Lane & Ersson (1991: 94), comparing the 1950/60s with the 1970/80s, have found less class voting in the later period for nine Western industrialized nations and stronger class voting in only two countries (France and Italy).

Our findings, on the basis of Thomsen indices instead of Alford indices, for twenty countries in the period 1945-1990, confirm the findings of these earlier studies. A substantial decline in the levels of class voting occurred in most countries. A first indication is provided by Tables 3.1 and 3.2, which show higher Thomsen indices for earlier periods than for more recent years. A second, more precise indication of the decline in levels of class voting in most countries is provided by the figures in

Table 3.3. Linear trends in the levels of class voting (measured by Thomsen index) in twenty countries (aggregated country dataset)

	Intercept (class voting in 1980)		Trend (change / 10 years)			N. of cases	Range
	parameter	s.e.	parameter	s.e.	Rank		
Australia	0.93*	0.06	-0.18*	0.03	10	17	1946-90
Austria	0.96*	0.11	-0.27*	0.13	6	5	1968-89
Belgium	0.86*	0.07	-0.20*	0.11	8	20	1968-90
Britain	1.06*	0.05	-0.22*	0.03	7	30	1945-90
Canada	0.28*	0.14	-0.01	0.06	18	13	1945-84
Denmark	1.15*	0.08	-0.30*	0.05	4	29	1945-90
Finland	1.57*	0.27	-0.30	0.21	3	5	1958-87
France	0.60*	0.05	-0.15*	0.00	12	25	1947-90
Germany	0.64*	0.05	-0.31*	0.04	2	25	1953-90
Greece	0.40*	0.18	0.15	0.34	19	10	1980-89
Ireland	0.76*	0.08	-0.15	0.13	13	18	1969-90
Italy	0.64*	0.04	-0.19*	0.05	9	20	1953-90
Luxembourg	0.99*	0.10	-0.14	0.19	14	17	1973-90
Netherlands	0.77*	0.04	-0.01	0.05	17	25	1950-90
Norway	1.09*	0.09	-0.44*	0.06	1	11	1949-90
Portugal	0.43	0.51	0.27	0.72	20	5	1985-89
Spain	0.74*	0.19	-0.16	0.30	11	6	1979-89
Sweden	1.48*	0.07	-0.27*	0.04	5	12	1946-88
Switzerland	0.80*	0.15	-0.07	0.25	16	4	1972-87
United States	0.37*	0.06	-0.12*	0.05	15	27	1948-90

Notes: * $p < 0.05$
The variable Year is centred around 1980.

Tables 3.3 and 3.4, where summary measures are reported for the decline - or rise - in the level of class voting for each country in the aggregated country dataset and the individual dataset respectively. For every country, a linear regression analysis was performed on the Thomsen indices with the exact year of observation as independent variable.[2] A decline in the level of class voting should be indicated by a negative trend-parameter. We should point out that we do not argue that a negative linear trend-parameter for a country implies a strict linear declining trend in the level of class voting in that country. The parameters are only regarded as a summary measure of the overall increase or decrease in class voting in a country, and not as the best representation of the developments in class voting over-time.

In Table 3.3, negative trend-parameters are reported for eighteen out of the twenty countries in our aggregated dataset. The only two countries with a positive (non-significant) trend-parameter are Greece and Portugal. However, for these two coun-

Table 3.4. Linear trends in the levels of class voting (measured by Thomsen index) in sixteen countries (individual dataset)

	Intercept (class voting in 1980)		Trend (change / 10 years)			N. of years	Range
	parameter	s.e.	parameter	s.e.	Rank		
Australia	1.07*	0.07	-0.26*	0.08	4	9	1965-90
Austria	1.29*	0.19	-0.50	0.27	1	4	1974-89
Belgium	-	-	-	-	-	1	1975
Britain	1.39*	0.04	-0.21*	0.05	5	12	1964-90
Canada	-	-	-	-	-	1	1984
Denmark	1.95*	0.22	-0.38	0.41	3	6	1971-81
Finland	-0.06	-	-3.51	-	-	2	1972-75
France	-	-	-	-	-	1	1978
Germany	0.84*	0.04	-0.16*	0.07	6	13	1969-90
Ireland	2.86	-	-1.78	-	-	2	1989-90
Italy	0.68*	0.10	-0.10	0.12	8	3	1968-85
Netherlands	0.89*	0.03	-0.15*	0.06	7	14	1970-90
Norway	1.36*	0.10	-0.46*	0.11	2	7	1965-90
Sweden	1.44	-	-0.46	-	-	2	1972-90
Switzerland	1.16	-	-0.14	-	-	2	1972-76
United States	0.47*	0.07	-0.06	0.06	9	24	1956-90

Notes: * $p < 0.05$
The variable Year is centred around 1980.

tries data are only available over the periods 1980-1990 and 1985-1990 respectively. Of the eighteen slope-parameters that are negative in Table 3.3, eleven are statistically significant at the 0.05 level. The pertinent countries are: Australia, Austria, Belgium, Britain, Denmark, France, Germany, Italy, Norway, Sweden, and the United States. Furthermore, the fact that we find statistically insignificant slope-parameters for Finland, Spain and Switzerland might be caused by the fact that for these countries we have data for only a limited number of years. Thus, in general, our data lend support to the statement that levels of class voting in Western industrialized societies have declined over the postwar period. The only countries for which we do not find significant declines in their levels of class voting, but where we have data for a sufficient number of years to detect significant trends, are Canada, Ireland, Luxembourg and the Netherlands. Inspection of the graphs for these countries in Figure 3.1, shows that indeed hardly any decline in class voting occurred in these countries.

Next, in Table 3.4 we present the parameters of the trend analyses of our individual dataset. For all thirteen countries we find a negative slope. For five out of the nine

countries where we had data for more than two years, we find significant trends. These countries are Australia, Britain, Germany, the Netherlands, and Norway.

A comparison of the entries in Tables 3.3 and 3.4 shows that for the four countries, except the Netherlands where there is a significant trend noted in Table 3.4, there is also a significant trend in Table 3.3. The fact that analysing our aggregated dataset for the Netherlands does not yield a significant trend-parameter and analysing our individual dataset does, is due to peculiarities of the developments in class voting in that country. As an inspection of the graph for the Netherlands in Figure 3.1 shows, the developments are non-linear, and therefore sensitive to the period investigated. In addition, we find some countries for which a significant trend is reported in Table 3.3, but not in Table 3.4. For most of these countries this is due to the fact that the trend analyses in Table 3.3 are based on a larger number of cases. This is the case in Austria, Denmark, Italy, Sweden, and the United States. However, for the United States an additional remark can be made. As the graph for the United States in Figure 3.1 indicates, the significant decline in class voting in that country presented in Table 3.3 might be due to the exceptional high level of class voting in 1948.

Some special attention should be paid to the trend in class voting in Britain. The graph for Britain in Figure 3.1 shows that the level of class voting was relatively stable over the period 1945-1964. Just after this period, there was a strong sudden decline in the level of class voting. Thereafter, from 1965 until 1990, the level of class voting was relatively stable again. Thus, when Heath and his associates only analysed data from 1964 until 1987, they could not find a long term trend. However, when the period 1945-1964 is included in the analyses, a long term decline in the level of class voting shows up.

Having ascertained that the levels of class voting in most Western industrialized countries declined, we next examine whether the extent of these declines differed between the countries. The figures in Tables 3.3 and 3.4 show that of all the countries featured in this study, Norway shows the strongest absolute decrease in the Thomsen indices, followed by the other Scandinavian countries. In Germany and Britain substantial absolute decreases in the Thomsen indices are also found. In the other countries the decline in class voting is less marked, whereas in Canada and the United States hardly any trend emerges. The question can then be raised whether these results would also have been obtained if the level of class voting had been measured by Alford indices.

3.4 Comparing Alford and Thomsen indices

Although we follow the theoretical considerations of scholars of the third generation

Table 3.5. Levels of class voting (measured by Alford index) in twenty countries, 1945-1990 (aggregated country dataset)

	1945-1960	1961-1970	1971-1980	1981-1990
Australia	32.9	29.3	27.8	19.4
Austria	-	27.4	28.9	18.3
Belgium	-	25.4	17.9	16.4
Britain	37.3	38.3	24.3	23.4
Canada	7.0	7.7	-	4.0
Denmark	39.8	52.0	28.1	20.9
Finland	48.4	50.2	36.9	35.7
France	24.4	18.3	17.0	11.7
Germany	36.0	24.8	14.9	13.4
Greece	-	-	12.3	9.7
Ireland	-	14.1	8.7	7.3
Italy	26.6	14.5	17.8	13.1
Luxembourg	-	-	24.8	18.8
Netherlands	14.0	14.7	21.8	15.5
Norway	52.5	32.0	33.8	20.5
Portugal	-	-	-	14.9
Spain	-	-	18.4	15.5
Sweden	51.0	40.7	37.3	32.7
Switzerland	-	-	17.6	12.8
United States	16.2	7.7	10.9	8.1
Mean	32.2	26.5	22.2	16.6
Std. deviation	14.9	14.2	8.6	7.8

(Heath et al. 1985; Hout et al. 1993) in regarding the Thomsen indices as a better measure of class voting for a two by two table than the Alford index, it is of interest to examine the extent to which empirical testing does yield different results using the Alford index or the Thomsen index. Therefore, we again use the data from our aggregated country dataset in the twenty countries in the period 1945-1990. On the basis of the 324 class voting cross-tabulations available, we calculated Alford indices as measures of the levels of absolute class voting in the countries in the various years.

Having calculated the Alford indices we first compared them with the Thomsen indices from the same year and country. In Chapter 2, we have already argued that in practice, for two by two class/vote tables, the advantages of the Thomsen index over the Alford index should not be overstated. Only when the distribution of the general popularity of political parties or the distribution of social classes is more skewed than 25:75 or 75:25 - which is seldom the case -, the Alford and Thomsen indices might yield substantially different conclusions. This idea is confirmed by our

Table 3.6. Linear trends in the levels of class voting (measured by Alford index) in twenty countries (aggregated country dataset)

	Intercept (class voting in 1980)		Trend (change / 10 years)			N. of cases	Range
	parameter	s.e.	parameter	s.e.	Rank		
Australia	22.5*	1.4	-4.2*	0.7	10	17	1946-90
Austria	22.7*	2.5	-6.1*	3.0	4	5	1968-89
Belgium	17.7*	1.5	-4.3*	2.4	8	20	1968-90
Britain	27.3*	1.7	-5.9*	1.2	5	30	1945-90
Canada	5.4*	3.3	-0.7	1.4	17	13	1945-84
Denmark	24.5*	1.3	-4.9*	0.8	7	29	1945-90
Finland	36.4*	5.9	-6.1	4.6	3	5	1958-87
France	14.4*	1.0	-3.7*	0.8	14	25	1947-90
Germany	15.4*	1.1	-7.0*	1.0	2	25	1953-90
Greece	8.0*	3.0	4.4	5.7	19	10	1980-89
Ireland	8.5*	0.7	-2.3	1.3	16	18	1969-90
Italy	15.5*	1.0	-4.3*	1.2	9	20	1953-90
Luxembourg	22.0*	2.2	-3.8	4.1	13	17	1973-90
Netherlands	17.8*	1.0	-0.2	1.0	18	25	1950-90
Norway	26.0*	2.1	-9.1*	1.5	1	11	1949-90
Portugal	10.9*	11.4	5.9	6.0	20	5	1985-89
Spain	18.3*	4.7	-4.1	7.1	11	6	1979-89
Sweden	35.2*	1.3	-5.5*	0.9	6	12	1946-88
Switzerland	15.4*	2.7	-3.8	4.4	12	4	1972-87
United States	8.8*	1.4	-2.8*	1.0	15	27	1948-90

Notes: * $p < 0.05$
The variable Year is centred around 1980.

analyses. The Pearson correlation between the Alford and the Thomsen indices of the 324 years in the twenty countries has the value 0.97 (p=0.000). Thus, the descriptions using Thomsen indices yield very much the same conclusions as descriptions using Alford indices.[3]

In addition, we compared the mean values per country per period of the Thomsen indices with the mean values of the Alford index. Therefore, we first calculated the average values of the Alford indices of each country in the periods 1945-1960, 1961-1970, 1971-1980 and 1981-1990, and presented these in Table 3.5. Not surprisingly when taking into account the high correlation between all Alford and Thomsen indices, the rankings of the countries on both measures of class voting in all four periods are very similar.

Finally, we compared the trends in the Alford indices and the Thomsen indices. To do this, for every country, a linear regression was computed of the Alford indices

in the specific years on the exact year of observation. The parameter estimates are reported in Table 3.6. The results are almost identical to the results in Table 3.3. For the countries we found positive trend-parameters in Table 3.3, positive trend-parameters are shown in Table 3.6. In addition, for the countries where we found insignificant negative trend-parameters and significant negative trend-parameters respectively in Table 3.3, such parameters are also presented in Table 3.6. Furthermore, if we compare the trend-parameters for the Alford indices to those for the Thomsen indices - i.e. the trend-parameters in Tables 3.6 and 3.3 respectively - we find that the ranking of the countries is almost identical. Scandinavian countries are ranked highest, the United States and Canada lowest. The largest difference in ranking number for the countries is for Switzerland which moved four places, down from rank 12 to rank 16, and Denmark and Ireland which moved three positions, from 7 to 4 and from 16 to 13 respectively. To illustrate the similarity in the findings for the Alford and the Thomsen index, we also calculated the Pearson correlation between the trend-parameters in Table 3.3 and those in Table 3.6. This has the value 0.97 (p=0.000).

Concluding, although Heath et al. (1985) and Hout et al. (1993) are right in regarding the Thomsen indices as a theoretically better measure of class voting for a two by two table than the Alford index, we note that empirical testing does not yield substantively different results. The conclusions of the first generation researchers, who employed the Alford index, are unlikely to be largely biased by their method of analysis.

3.5 Conclusions

Following a long tradition of research on stratification and politics, in this chapter we described the strength of the relationship between class and voting behaviour in many Western industrialized countries over the postwar period. In the firstgeneration, such descriptions are given, focussing on absolute levels of class voting, i.e. when employing the Alford index as a measure of the level of class voting. However, scholars of the third generation of research on stratification and politics have cast doubts on the conclusions drawn in studies using this measure. These scholars have claimed that the findings might be misleading, since the Alford index is sensitive to changes in the overall popularity of the political parties. They therefore propose focusing on the levels of so-called "relative class voting", i.e. when using the log-odds-ratio as a measure of class voting in a country.

In the present chapter we followed the developments in this research area, and investigated the between-country and over-time variation in the levels of relative class voting in twenty Western industrialized countries in the postwar period. Our

main investigations were based on a dataset that consists of 324 tabulations cross-classifying class (manual/nonmanual) and voting behaviour (left-wing/right-wing). On the basis of these tables we computed for each year in each country where data were available, a log-odds-ratio - dubbed the Thomsen index - as a measure of the level of relative class voting. Furthermore, we also analysed a more restricted dataset, i.e. our individual-level dataset of 113 surveys from sixteen countries over the period 1956-1990. However, the analyses on both these datasets yielded the same conclusions.

Summarizing, the analyses clearly indicated that *substantial differences in levels of relative manual/nonmanual class voting have existed across democratic industrialized countries in the postwar period. The Scandinavian countries and Britain have had relatively high levels of manual/nonmanual class voting, while the United States and Canada have had low levels.*

In addition, our analyses showed that *substantial declines in the level of relative manual/nonmanual class voting have occurred in many of the democratic industrialized countries in the postwar period.* These declines have not occurred with the same speed in all countries. *The declines in class voting were largest in the Scandinavian countries, followed by Germany and Britain. In the United States the smallest decline was found. Furthermore, in Canada, Ireland, Luxembourg and the Netherlands no systematic declines in class voting at all were found over the last decades.* In Greece and Portugal rises in levels of class voting were found, however nonsignificant.

In this chapter we also compared the levels of relative manual/nonmanual class voting, i.e. measured by the Thomsen index, with the levels of absolute manual/nonmanual class voting, i.e. measured by the Alford index. The obtained Alford indices and Thomsen indices correlated at 0.97. More importantly, whether using the Thomsen or the Alford index, the same rankings of the countries with respect to the levels of class voting, as well as to the speed of decline of class voting were obtained. Thus, although theoretically we regard the Thomsen index as a better measure of class voting for a two by two table than the Alford index, we have to conclude that empirical testing in this chapter does not yield substantively different results when using the Alford index.

4 Effects of Social and Political Characteristics of Countries on Manual/Nonmanual Class Voting

4.1 Introduction[1]

Having established that there have been substantial differences in levels of relative class voting between Western industrialized countries in the postwar period, and that during the same period significant declines occurred in class voting levels within these countries, we now attempt to explain these differences and trends. In the present chapter we examine whether the variations in class voting between countries and periods can be explained by variation in various social and political characteristics of the countries and periods.

When examining the effects of such country characteristics on class voting, we build on various studies of stratification and politics from the first up to and including the third generation that have suggested how social and political characteristics affect levels of class voting in countries. The characteristics raised by such studies range from variations in ethnic diversity, via rises in the general standard of living, to differences in the prominence of class issues in politics. Studies suggesting these explanations, however, seldom tested these explanations by analysing data from many countries and years and by employing strong tests. In studies of the first generation, the link between social and political characteristics of countries and their levels of class voting was at best weakly empirically tested. In these studies limited comparable data were available on both class voting and on explanatory variables. Furthermore, the attention was on levels of absolute rather than relative class voting. In studies of the second generation, tests of explanations of variation in class voting had a low priority on the research agenda. So far, studies of the third generation have also paid little attention to these explanations. However, this third generation has characteristically focused on relative class voting, and has been able to take advantage of much larger datasets and more appropriate research techniques.

This chapter aims to fill the gap in research to date, by using the possibilities with respect to data and techniques of the third generation, and by addressing the following two questions. The first is: *To what extent can differences across democratic industrialized countries in the levels of relative manual/nonmanual class voting be explained by differences between these countries in their social and political characteristics?* and the second is: *To what extent can changes within*

democratic industrialized countries in the levels of relative manual/nonmanual class voting be explained by changes within these countries in their social and political characteristics?

When addressing these questions, we aim to improve on earlier studies in several ways. First, in our analyses we explain the level of class voting in a country by using measures of specific social and political characteristics of that country, instead of by simply referring to general explanations or to peculiarities of countries. Thus, names of countries are replaced with scores on variables (cf. Przeworski & Teune 1970). In this respect our study differs from those electoral change studies that do not employ measures for country characteristics in the final comparative analysis (Dalton et al. 1984; Franklin et al. 1992). Instead, we follow the lead of Korpi (1983) and Kerr (1990) who correlated country characteristics with indices of the level of class voting. Second, the present chapter addresses its explanatory question by subsuming a list of concrete hypotheses involving country characteristics under a more general notion. By doing so it avoids mere enumeration and grand generalization and aims at systematic explanation. Third, this chapter presents analyses of data for a considerable number of countries and over numerous points in time. We analyse our aggregated dataset for twenty countries in the period 1945-1990. In this way the present study goes beyond earlier studies involving a limited number of countries (Alford 1963; Kerr 1990) and few points in time (Korpi 1983; Lane & Ersson 1991). We hope that our expanded dataset lessens the chance of not accepting hypotheses due to a lack of statistical power, when in reality these hypotheses hold. Moreover, our dataset allows us to test hypotheses using multivariate techniques. A test employing such techniques goes well beyond the best earlier ones of Korpi (1983) and Kerr (1990).

The outline of this chapter is as follows. In the next section we review, systematize, and correct current hypotheses concerning the levels of class voting in Western industrialized countries over the postwar period. In the third section the results of bivariate tests of the hypotheses are described. Section 4 contains a comprehensive multivariate test of the hypotheses, while in Section 5 the tenability of these hypotheses in light of the results is discussed.

4.2 Hypotheses

In studies addressing questions on class voting, several hypotheses have been formulated concerning the effects of country characteristics on a country's level of class voting at a certain point in time. In this section we review this literature and list several of these hypotheses. No claim is made that the list of hypotheses is exhaustive. We do claim, however, to have selected the current hypotheses that

pertain to explanatory factors for which measurable variables are available.

As to absent hypotheses we would like to note that we formulated our hypotheses without incorporating feedback effects. Country characteristics are assumed to have an effect on a country's level of class voting, and not the other way around. However, in some cases it might well be that a country's level of class voting affects a particular characteristic of a country. For example, comparing the income differences and the levels of class voting of a dozen Western industrialized countries, Lenski et al. (1991), and Lane & Ersson (1991) found that smaller income differences and more class voting go together. According to them, the comparison suggested that class-based party systems tend to reduce income inequality somewhat. Furthermore, it seems plausible that the higher the level of class voting in a country, the more prominent class issues are in daily politics. However, we have decided not to formulate and test hypotheses incorporating feedback effects in this study. Although a research design with mutual influences could be regarded as ideal, such a design goes well beyond what the presently available data allow.

Before listing our hypotheses, a comment is in order on the degree to which hypotheses remain unconnected in the literature and are connected in the present study. When reviewing the literature, the hypotheses formulated in the various studies neither seem to be related to each other nor to a general notion. In this chapter we seek to incorporate the hypotheses into a single framework by using general theories on individual voting behaviour. From these theories, we employ in particular the general notion that people, at least with respect to voting, act to further their interests. This idea may also be expressed as a hypothesis according to which voters regard political parties as different means through which they can attain their goals. In this view, individuals vote for the party that contributes most to the realization of these goals. This idea is more or less implicit in Lipset (1960) and is prominent in Downs (1957).

Material interests of voters

Let us start with hypotheses on the material goals or interests of voters. To specify hypotheses about these interests, an assumption is required that states which political party furthers the material interests of what kind of persons. According to revisionist historical materialism (Bernstein 1899), manual workers have economic interests opposed to those of nonmanual workers and the propertied classes. For manual workers, voting for a left-wing party furthers these interests more than it would for members of the nonmanual classes. Voting for a right-wing party would be against the material interests of manual workers since these parties appeal more to the interests of the nonmanual classes. A left-wing party promises manual workers better

living conditions in general, and a higher income in particular. A right-wing party seeks to maintain or improve the material conditions of the nonmanual classes. With this assumption and the idea that people act to further their economic interests, Lipset (1983: 239) explained the finding of class voting.

To develop a more comprehensive theory about the economic interests of voters, this first hypothesis should be supplemented with other predictions. One such prediction holds that as income differences between the classes of a country increase, the level of class voting in that country increases (Lane & Ersson 1991: 95). The assumption - probably not always correct but sufficiently approximate - required for deriving this prediction from our unifying statement has been made by Alford (1963). It holds that if income differences between classes are larger, people stand to win or to lose more in an economic sense, by voting for a particular party. Therefore it can be expected that:

The larger the income differences between classes in a country at a certain point in time, the higher that country's level of class voting at that moment.

Kerr et al.'s (1960) theory of industrial society maintains that in countries and in times with a lower general standard of living, persons from the manual classes stand to win more in economic respects by voting according to their economic interests than would be the case in countries and periods where industrialization has led to a higher standard of living. In countries and periods where standards of living are high, persons from the nonmanual classes voting for a left-wing party incur less severe losses than they would in countries and times of a lower standard of living. Something like the phenomenon of diminishing marginal utility seems to be at work. This yields the prediction that:

The higher the standard of living in a country at a certain point in time, the lower its level of class voting at that moment.

It has often been held that social class mobility weakens class conflict (Sombart 1976 [1906]; Dahrendorf 1959; Alford 1963; Lenski 1987). This macro-level hypothesis can also be derived from assumptions at the individual-level. It can plausibly be held that the longer persons belong to a certain class, the higher the likelihood of their acting in accordance with their present economic interests. After all, for individuals it need not be immediately apparent what their economic interests are. Since socially mobile persons may be presumed to belong to their present class for a shorter period than socially stable persons, and consequently to be less socialized into it, their voting patterns will be somewhere between the voting behaviour of their origin class and their destination class. A line of research at the individual-level stretching from Lipset & Bendix (1959) to De Graaf and his colleagues (1995), has shown that persons moving out of the manual classes vote in

a more right-wing way than those staying behind and in a more left-wing way than those they are joining in their new station in life. Downwardly mobile persons are more leftist than those staying in their class of origin and more rightist than those stable in their class of destination. Thus, the odds for manual workers of voting for left-wing parties rather than right-wing parties are determined by the percentage of manual workers originating in the nonmanual classes. In a similar vein, it can be maintained that as the probability of nonmanual class workers originating in the manual classes increases, the chances of these workers voting for a right-wing party decrease.

However, in order to move from separate hypotheses for individual manual and nonmanual classes members to a single hypothesis linking a country's level of mobility and its level of class-based voting, more assumptions are required. For example, it may be held that an increase in the inflow to a certain class goes together with a stable or increasing inflow to another class. Under this assumption it follows that the total percentage of mobility increases. Given this assumption, one obtains the macro-hypothesis that in countries with a higher percentage of persons mobile between the social classes, the level of class voting is lower. However, it will be apparent that in cases where the inflow to one class decreases while increasing in the other, no macro-predictions about mobility percentages and class-based voting can be derived without yet further assumptions. We know of no comparative study in the field of mobility that directly addresses the question of the tenability of the assumption that an increase in the inflow to one class is not accompanied by a decrease in the inflow to another class. Indeed, the figures for eleven countries assembled in Erikson & Goldthorpe (1992: 190) provide at least some evidence against it. Nevertheless, accepting this assumption it can be predicted that:

The higher the percentage of intergenerational class mobility in a country at a certain point in time, the lower that country's level of class voting at that moment.

Korpi (1983: 35) has argued that the higher the union density in a country, the higher that country's level of class voting. This hypothesis was supported by a correlation of 0.71 between union density and class voting for eighteen OECD countries in the 1970s. However, once again a difficulty arises with respect to the derivation of this macro-hypothesis from individual-level assumptions.

When thinking of the effects of a rise in union density, it is quite clear that as union density rises among the working classes of any country, the chances of *manual* class members voting left-wing will be higher and thus the level of class voting in that country will also be higher. In this case, we simply assume that for people with certain economic interests, being a member of organizations representing these interests, increases the chances of voting according to their economic interests. Without the support of such organizations it would be less clear for persons what

their economic interests are, and what behaviour these interests promote.

The effects of union membership among *nonmanual* workers on the chances of voting for the left or right are also straightforward. From the earliest election studies in small towns in the United States (Lazarsfeld et al. 1948), it has been shown at the individual-level that labour union membership, independent of a person's social class, increases the likelihood of voting for the left. Similarly, recent findings based on data from various Norwegian election surveys from 1957 until 1985, have shown that nonmanual workers who were union members were more likely to vote for the left than were nonmanual workers who had no union affiliations (Listhaug 1989: 77). This hypothesis yields the macro-prediction that the higher the rate of union membership among the nonmanual classes of a country at a given point in time, the greater the chances of nonmanual workers voting for the political left.

It is not immediately apparent, however, how the above derivations are to be squared with Korpi's hypothesis that a higher union density makes for more class voting. To do this, additional assumptions are required. In general, it may be assumed - as Korpi probably did - that the contribution of unionisation to left voting by the manual classes is stronger than its contribution to left voting among nonmanual classes. In addition, one might presume that an overall rise in union density amounts to more or less the same rise for manual and nonmanual workers. If these two assumptions hold, Korpi's hypothesis can be derived. The first assumption is corroborated by casual inspection of published tables, the second by the data in Visser (1989). Thus, as our final hypothesis on material interests we propose that:

The higher the union density in a country at a certain point in time, the higher that country's level of class voting at that moment.

Non-material interests of voters

Apart from material interests, people have non-material interests linked to factors such as the ethnic group they identify with or are assigned to, the language they speak and the religion they practice. Ethnic minorities are in favour of positive discrimination, people practising a language want it to be used in court and government publications, and people with a certain religion want their children to be taught about it in schools. Just as it can be assumed that voting to some extent reflects people's economic interests, it can also be held that their non-material interests in some degree influence their voting. In most countries, people with the same economic interests do not fully share the same non-material interests. The occurrence of these cross-cutting cleavages has been amply documented (Lipset & Rokkan 1967; Lijphart 1979). In addition, it may be assumed that in most countries

the non-material interests of symbolic minorities are represented by left-wing parties (for instance, those of Jews and blacks in the United States by the Democrats), while the non-material interests of symbolic majorities are championed by right-wing political parties (for instance, those of Catholics and Lutherans in Germany by the Christian-Democrats). Larger and more numerous symbolic minorities and smaller majorities make for greater symbolic heterogeneity.

To make specific predictions about the effects of non-material interests on the level of class voting in a country, it can be supposed that ethnicity, language and religion are sources of non-material interests. The importance of these characteristics, besides class, in explaining individual voting behaviour has been shown by Lijphart (1979) and by Franklin and his colleagues (1992). Assuming cross-cutting of class on the one hand and religion, language and ethnicity on the other, and assuming that people act to further their interests, it can be predicted that in countries with high religious and ethnic diversity both manual and nonmanual workers will be less apt to vote according to their economic interests than in countries with low diversity. Consequently, the following hypotheses can be formulated:

The higher the religious and ethnic diversity among the population of a country at a certain point in time, the lower is that country's level of class voting at that moment.

Characteristics of parties and politicians

Applying the unifying assumption that people act to further their own interests, additional predictions on class-based voting in a country can be obtained by regarding not only voters as actors during elections, but also the politicians and parties they vote for. Coleman (1982) emphasized the importance for social theory of corporate actors, as distinct from natural persons. Furthermore, Lane & Ersson (1991), and Sartori (1990) have stressed the pertinence of institutional factors for comparative voting research.

One concrete prediction stemming from this line of reasoning relates to the role of issues in politics, or more precisely the matters that politicians debate and legislate upon. Let us assume that the stronger class features are as an issue for politicians, the more a person from a certain class stands to win by voting according to economic interests. It then can be derived that the more class figures as an issue in a country's politics, the more voting will be class-based in that country. This is consistent with Lane & Ersson's (1991: 132) proposition, and leads us to the hypothesis:

The more a country's politics involve class issues at a certain point in time, the higher that country's level of class voting at that moment.

These considerations lead us to derive a final hypothesis about the interaction between voters and politicians. If politicians seek to govern and stay in business, and if voters and politicians act to further their economic interests, then rational politicians will respond to changes in a country's class structure. The greater the proportion of manual workers in a country, the more politicians from left-wing parties will try to win votes from that manual class part of the electorate. Conversely, as Przeworski (1985) argued, the lower the percentage of manual workers in a population, the more likely it is that politicians from left-wing parties will adapt their policies in order to attract votes of nonmanual workers. Kerr's (1990) findings for eight industrialized nations in the 1970s, support this hypothesis by showing a negative relationship between the ratio of blue collar to white collar workers and the extent of class voting. We can thus predict that:

The lower the proportion of manual workers in a country's population, the lower is that country's level of class voting at that moment.

4.3 Bivariate results

We now test our hypotheses proposed to explain the differences in the levels of class voting across countries and trends in the levels of class voting within these countries. In our analyses we use the set of country data discussed in Chapter 2 and in Appendix A. In this dataset we have 324 Thomsen indices plus measures of country characteristics for twenty countries over various years. This relatively large dataset allows us to test hypotheses concerning the effect of one country characteristic, while controlling for the effects of other characteristics. However, we start by simple tests of our hypotheses by calculating the zero-order correlations between our explanatory variables and levels of class voting.

Explaining differences between countries

To determine whether variation in the country characteristics adduced in the previous section account for differences in the levels of class voting across countries, we could calculate simple zero-order correlations on all data. However, since the 324 year/country combinations are not independent, we examine the effects of country characteristics on the levels of class voting when using the mean values of the observations for four periods: 1945-1960, 1961-1970, 1971-1980 and 1981-1990. In this way thus eliminating the effects of period or year characteristics and eliminated errors in the several observations for one country. We then calculated for these periods the correlations between the mean levels of class voting for a country in that

Table 4.1. Zero-order correlations between explanatory variables and the levels of class voting per period, 1945-1990

	1945-1960 (N_{max}=12)	1961-1970 (N_{max}=14)	1971-1980 (N_{max}=18)	1981-1990 (N_{max}=20)
Income differences	-0.52*	-0.60*	-0.44*	-0.38
Std. of living	-0.37	-0.30	-0.04	0.04
Perc. mobile	-0.08	-0.32	0.27	0.43*
Union density	0.63*	0.62*	0.78*	0.78*
Rel.-ethn. diversity	-0.80*	-0.57*	-0.32	-0.31
Class as issue	-0.11	-0.01	0.02	0.12
Perc. manual	0.71*	0.41	0.52*	0.40*

Note: * $p < 0.05$

period and the mean values of the explanatory variables in that period. The zero-order correlations calculated for all data over the periods defined are presented in Table 4.1.

The pattern in the columns of Table 4.1 is quite consistent. Four country characteristics out of seven have significant effects on levels of class voting. These characteristics are income differences, union density, religious- and ethnic diversity, and the percentage of manual workers. Three of these effects are in the expected direction. As predicted, the higher the religious and ethnic diversity in a country, the lower the level of class voting. Similarly, the higher the union density in a country, the higher the level of class voting. In addition, as predicted, the higher the percentage of manual workers in a country, the higher the level of class voting. However, the effect of the extent of income differences is not as predicted. The negative sign of the correlation indicates that high income differences in a country are linked to low levels of class voting, a finding which is contrary to our hypothesis.

Our three other explanatory variables give also results not fitting with the formulated hypotheses. The correlation between the percentage mobility and the level of class voting is only statistically significant in one out of the four periods, and even then the correlation has a sign that is in the opposite direction to what our hypothesis predicts. Furthermore, neither a country's standard of living, nor the extent to which class is an issue in a country's politics, offer a significant contribution to the explanation of differences in class voting across countries.

Table 4.2. Zero-order correlations between explanatory variables and the levels of class voting per country, 1945-1990

	Standard of living	Perc. mobile	Union density	Perc. manual	N. of cases
Australia	-0.78*	-0.72*	-0.10	0.65*	17
Austria	-0.73	-0.59	0.69	0.38	5
Belgium	-0.44*	0.25	-0.37*	0.02	20
Britain	-0.79*	-0.80*	-0.37*	0.72*	30
Canada	-0.06	-0.03	-0.05	0.05	13
Denmark	-0.74*	-0.68*	-0.81*	0.59*	29
Finland	-0.64	-0.45	-0.78	0.52	5
France	-0.64*	-0.58*	0.55*	0.09	25
Germany	-0.85*	-0.79*	-0.19	0.69*	25
Greece	0.35	-	0.32	-0.66*	10
Ireland	-0.01	-0.14	0.30	0.35	18
Italy	-0.67*	-0.59*	-0.31	0.40*	20
Luxembourg	-0.14	-	-0.04	-0.18	17
Netherlands	0.09	-0.11	0.32*	0.11	25
Norway	-0.89*	-0.63*	-0.39	0.85*	11
Portugal	0.22	-	-	-0.29	5
Spain	-0.25	-0.22	0.22	-0.28	6
Sweden	-0.92*	-0.88*	-0.80*	0.90*	12
Switzerland	0.10	-	-0.50	0.08	4
United States	-0.46*	-0.37*	0.39*	0.45*	27

Note: * $p < 0.05$

Explaining trends within countries

We next tried to explain trends within countries using zero-order correlations. However, before looking at these correlations, a remark about the actual scores on the explanatory variables is necessary. Our hypotheses do not distinguish between explaining differences in the course of time and explaining differences across countries. Thus, on theoretical grounds, all explanatory factors can be expected to explain both differences between countries and trends within countries. In fact, however, the scores of some of our explanatory variables hardly show any variation within countries. As the figures in Table A.1 in Appendix A make clear, the measures for religious and ethnic diversity, and for class as an issue are almost constant over-time within each country. In addition, our measure of income differences comes from one source, and has a very small variation. Thus, knowing that levels of class voting changed substantially over-time, these variables cannot explain developments in the levels of class voting within countries. Consequently,

we cannot test the hypotheses that trends in the levels of class voting within countries can be explained by trends in the levels of religious and ethnic diversity, the prominence of class as an issue and the extent of income differences in these countries.

The zero-order correlations between the levels of class voting of countries at a given point in time, and the values of the remaining explanatory factors - standard of living, percentage mobile, percentage manual workers and union density - at that time, are presented in Table 4.2.[2] This shows that the correlations between standard of living, percentage of mobility, and size of the manual class at various times and the level of class voting at these times are, for almost every country, in the expected direction and often significant: the higher the standard of living in a country, the higher the percentage mobile, and the lower the percentage of manual workers, the lower the level of class voting in that country. Thus, three of our hypotheses are corroborated by these zero-order correlations. However, the effect of union density on the level of class voting at a given point in time for any country is less clear. The coefficients in Table 4.2 show that in some countries a higher union density makes for a rise in the level of class voting, while in other countries it is accompanied by a decline in class voting.

4.4 Modelling the effects of country characteristics

To determine the extent to which a zero-order correlation between a country's characteristic and a country's level of class voting is spurious, multivariate analysis is needed. This allows us to control for the effects of other country characteristics. In this chapter we used a multivariate technique to analyse our dataset containing 287 Thomsen indices over various year in sixteen countries out of the original twenty countries. This restriction was due to the fact that for four countries - Austria, Greece, Luxembourg, and Portugal - there were missing data on one or two of the explanatory variables (i.e. on income differences or percentage mobile).

In this analysis, rather than more traditional techniques like OLS regression, we used so-called "multi-level" models, that distinguish between three levels, i.e. the individual-level, the year-level and the country-level. There were two reasons for this. First, the multi-level approach takes account of the layered character of our data. In our dataset, for each country there is information about class voting from various years. Compared to traditional techniques the multi-level method has the benefit that, by estimating separate year- and country-level errors, it adjust for the correlation of errors within years and within countries (Goldstein 1987). Second, the multi-level technique is able to deal with the different reliabilities of our measures of the level of class voting, i.e. the Thomsen indices.[3] In our dataset some Thomsen

indices were calculated for class voting tables containing many respondents, while others were based on tables containing only a small number of respondents. By including an individual-level in a multi-level model the Thomsen indices from small surveys were given less weight than those from large surveys.

Some additional explanatory remarks are required about the multi-level models we used to test our hypotheses. These hypotheses pertain to three types of effects: (1) the effect of an individual's social class on the log-odds of voting for a left-wing rather than a right-wing political party in a certain country and a certain year, (2) year-level effects on the level of class voting within a specific country, (3) country-level effects on cross-country differences in the level of class voting.[4] An advantage of the multi-level approach was that regression equations corresponding to these three effects could be estimated simultaneously.

At the *individual-level*, for each individual i in year j and country k, the log-odds of voting for a left-wing rather than a right-wing party was given by:

$$\log((\pi^{*}\text{Left}_{ijk})/(1 - \pi^{*}\text{Left}_{ijk})) = \beta_{0jk} + \beta_{1jk}\ \text{Manual class}_{ijk} + \varepsilon_{ijk} \qquad (1)$$

where the variable for the voting behaviour of individuals, *Left*, is coded (1) when they vote for a left-wing party and (0) when they vote for a right-wing party. In this equation, the β_{0jk}-parameter represents the log-odds for nonmanual workers of voting for a left-wing rather than a right-wing party. This parameter is taken as random at both higher levels. Thus, it varies over countries and years, implying that the number of left-wing party adherents may differ between years and among countries.[5] β_{0jk} is defined as a random parameter since our major concern is neither with the voting behaviour of the manual class as such nor with that of the nonmanual class per se. Instead, we are predominantly interested in the differences in voting *between* these two classes. The β_{1jk} coefficient in the individual-level equation represents the difference in voting behaviour between the manual and the nonmanual class. This β_{1jk} coefficient is defined as the difference between the log-odds for manual workers of voting for a left-wing rather than a right-wing political party and the log-odds for nonmanual workers of voting for a left-wing rather than a right-wing party. As discussed in Chapter 2 of this study, this difference in log-odds for the manual and nonmanual class is equivalent to the Thomsen index.

Since the major research aim in this chapter was to explain the differences in Thomsen indices across countries and between years within countries, the level of class voting within countries, indicated by the β_{1jk}-parameter, was first predicted at the *year-level* by the following equation:

$$\begin{aligned}\beta_{1jk} = \ & \beta_{10k} + \beta_{110}\ \text{Std. of living}_{jk} + \beta_{120}\ \text{Perc. Mobile}_{jk} + \\ & \beta_{130}\ \text{Union density}_{jk} + \beta_{140}\ \text{Perc. Manual}_{jk} + \gamma_{1jk}\end{aligned} \qquad (2)$$

This year-level equation does not contain all our explanatory variables. As we have already stated in the previous section of this chapter, some country characteristics - income differences, religious and ethnic diversity, and class as an issue - did not show over-time variation. Consequently, it made no sense to include these characteristics in this year-level equation. Since the formulated hypotheses do not state that the strength of the effects of the country characteristics differ between countries, the β_{110} to β_{140} coefficients in the year-level equation were constrained to be equal across countries. This implied that the effects of the explanatory variables on the levels of class voting were constant over the countries. Thus, in equation (2) it is only the intercept β_{10k} that has to be allowed to vary from country to country.

The intercept parameter β_{10k} then serves as dependent variable in the *country-level* equation that uses the means per country of the explanatory variables as predictors:[6]

$$\begin{aligned}\beta_{10k} = \; & \beta_{100} + \beta_{101}\,\text{Income diff.}_k + \beta_{102}\,\text{Std. of living}_k + \beta_{103}\,\text{Perc. Mobile}_k + \\ & \beta_{104}\,\text{Union density}_k + \beta_{105}\,\text{Religious and ethnic diversity}_k + \\ & \beta_{106}\,\text{Class as an issue}_k + \beta_{107}\,\text{Perc. Manual}_k + \theta_{10k} \qquad (3)\end{aligned}$$

In order to obtain sensible and interpretable parameter estimates, we had to make a decision on how to choose the location of the intercepts and the slopes in the multi-level equations (see Bryk & Raudenbush 1992: 25-29). In this study we decided to centre the original within-country predictors in equation (2) around their country means. By doing so, the intercept-parameter in equation (2) - which is also the dependent variable in equation (3) - represented the mean level of class voting in each country in our dataset. A benefit of this centring strategy was that the explanatory variables at the year-level were uncorrelated with the between-country variance (cf. Ganzeboom et al. 1989: 36).

4.5 Multivariate results

To investigate to what extent social and political characteristics of countries explain over-time and between-country variation in class voting, we first examined how much variation there was in class voting. To do this we fitted a null multi-level model, which is the same as the model described[7], but without including the listed explanatory variables. As mentioned before, the discussed multi-level model was applied to data for sixteen out of our original twenty countries. This was because for four countries - Austria, Greece, Luxembourg and Portugal - there were missing data on one or two of the explanatory variables (i.e. on income differences or percentage mobile). Table 4.3 contains the estimated parameter coefficients of this null model. The parameter estimates of interest are those pertaining to the variable *Manual class*.

The fixed effect-parameter of this variable indicates that the average of the Thomsen indices over all years and countries in the dataset has the value 0.887. Furthermore, the variance components pertaining to that variable show that the Thomsen index varies significantly both at the year-level (0.082) and at the country-level (0.168). In addition, these parameters show that of the total variance in Thomsen indices, the greatest variance, i.e. 0.168/(0.082 + 0.168), or 67 per cent, was across countries, with 33 per cent between years.

Next, to investigate how much of the between-country and over-time variation in class voting can be explained by variation in social and political characteristics of countries, as a second step, we fitted the full multi-level model, including all explanatory variables.[8] The estimated parameters of this model are presented in the last two columns of Table 4.3.[9] The variance component parameters of this full model show that of the original variance in the Thomsen indices at the country-level (0.168 - 0.034)/0.168, or about 80 per cent, is explained by the included explanatory variables. Of the year-level variance (0.082 - 0.039)/ 0.082, or about 52 per cent, is explained. The parameters also indicate that significant variance at the year- and country-level exist in the full model.[10]

However, our goal was not simply to determine the percentages of variance in class voting that could be explained by variation in the social and political characteristics of the countries, we also and primarily aimed to test the formulated hypotheses. Therefore, next we examined the effects of the explanatory variables on the levels of class voting, as measured by the Thomsen index. These effects are represented by the fixed components presented in the last two columns of Table 4.3. The question is, to what extent do the parameters of these fixed components lend support to the formulated hypotheses?

Explaining differences between countries

Let us first review the seven hypotheses that have been modelled to explain differences between countries. To do this, we have to pay attention to the fixed components at the country-level in Table 4.3. The signs for two of the coefficients, i.e. for religious and ethnic diversity in a country and union density in a country, are significant and in the expected direction. Thus, two of our hypotheses are corroborated: the lower the religious and ethnic diversity, and the higher the percentage of union members in a country, the higher the level of class voting in that country.

The two other promising candidates from the bivariate analyses - a country's income differences and the size of its manual class - are not statistically significant. Thus, their significant zero-order correlations have to be regarded as spurious given

Table 4.3. Parameter estimates of multi-level models explaining the levels of class voting in sixteen countries, 1945-1990

		Null model		Full model	
		parameter	s.e.	parameter	s.e.
Fixed components					
COUNTRY-LEVEL					
Manual*Income differences	β_{101}			-0.068	0.038
Manual*Std. of living	β_{102}			-0.016	0.048
Manual*Perc. mobile	β_{103}			0.088*	0.030
Manual*Union density	β_{104}			0.009*	0.004
Manual*Rel.-ethn. diversity	β_{105}			-0.227*	0.091
Manual*Class as issue	β_{106}			-0.133	0.078
Manual*Perc. manual	β_{107}			0.003	0.013
YEAR-LEVEL					
Manual*Std. of living	β_{110}			-0.076*	0.011
Manual*Perc. mobile	β_{120}			-0.002	0.009
Manual*Union density	β_{130}			-0.011*	0.003
Manual*Perc. manual	β_{140}			0.003	0.003
INDIVIDUAL-LEVEL					
Constant	β_{000}	-0.675*	0.108	-0.678*	0.109
Manual	β_{100}	0.887*	0.105	0.357	1.629
Variance components					
COUNTRY-LEVEL					
Constant	$var(\theta_{00k})$	0.180*	0.066	0.181*	0.067
Manual	$var(\theta_{10k})$	0.168*	0.063	0.034*	0.014
YEAR-LEVEL					
Constant	$var(\gamma_{0jk})$	0.087*	0.008	0.087*	0.008
Manual	$var(\gamma_{1jk})$	0.082*	0.009	0.039*	0.005
INDIVIDUAL-LEVEL					
Constant	$var(\varepsilon_{ijk})$	-		1	0

Notes: * $p < 0.05$
N = 431,424 individuals within 287 years within 16 countries.

Table 4.4. Linear trends (change/10 years) in the levels of class voting, standard of living, percentage of manual workers, percentage of intergenerationally mobile and union density in twenty countries, 1945-1990

	Class voting		Std. of living		Perc. mobile		Union density		Perc. manual		N. of
	Trend	s.e.	Trend	s.e.	Trend	s.e.	Trend	s.e.	Trend	s.e.	cases
Australia	-0.18*	0.03	1.93*	0.08	2.15*	0.21	0.07	0.37	-8.03*	0.77	17
Austria	-0.27*	0.13	2.37*	0.17	3.64*	0.61	-3.09*	0.67	-8.81*	2.60	5
Belgium	-0.20*	0.11	1.74*	0.07	-0.23*	0.10	7.98*	0.29	0.40	1.32	20
Britain	-0.22*	0.03	1.66*	0.05	2.31*	0.14	1.00*	0.53	-3.17*	0.63	30
Canada	-0.01	0.06	2.05*	0.24	0.96*	0.20	1.74*	0.32	-2.81	1.88	13
Denmark	-0.30*	0.05	1.96*	0.06	1.93*	0.17	7.36*	0.51	-3.29*	0.62	29
Finland	-0.30	0.21	2.72*	0.06	7.89*	2.25	18.79*	4.07	-9.19*	2.04	5
France	-0.15*	0.00	2.29*	0.08	1.75*	0.18	-2.35*	0.45	-1.68*	0.80	25
Germany	-0.31*	0.04	2.35*	0.05	1.89*	0.17	0.16	0.31	-6.16*	1.56	25
Greece	0.16	0.34	0.55*	0.09	-	-	0.72*	0.11	-21.76*	7.19	10
Ireland	-0.15	0.13	0.54*	0.10	0.81*	0.13	-3.26*	1.41	-0.18	2.53	20
Italy	-0.19*	0.05	2.49*	0.07	4.58*	0.36	4.06*	1.08	-5.57*	1.39	19
Luxembourg	-0.14	0.19	2.58*	0.17	-	-	-0.30	0.94	-1.42	2.54	17
Netherlands	-0.01	0.05	1.89*	0.09	2.05*	0.16	-4.72*	0.54	-4.71*	0.86	25
Norway	-0.44*	0.06	2.83*	0.21	0.93*	0.29	1.63	0.93	-5.74*	1.01	11
Portugal	0.27	0.72	2.16*	0.30	-	-	-	-	22.77	13.96	4
Spain	-0.16	0.30	0.96*	0.39	12.63*	2.73	-8.53*	1.85	9.07	7.64	6
Sweden	-0.27*	0.04	2.02*	0.09	1.80*	0.25	7.62*	0.83	-3.29*	0.77	12
Switzerland	-0.07	0.25	1.84*	0.65	-	-	0.13	2.21	-14.33*	1.63	4
United States	-0.12*	0.05	2.47*	0.09	1.34*	0.16	-4.09*	0.31	-5.57*	0.46	27

Note: * $p < 0.05$

their links with union density and religious and ethnic diversity and the connection between the last two factors and the level of a country's class voting. The standard of living factor and the factor of class as an issue had no effects in the bivariate analysis, and again have no effects in the multivariate analysis.

Furthermore, in the multivariate analysis the coefficient for the effect of the percentage of mobile persons in a country does have a significant effect. Its sign indicates that the higher the percentage of mobile persons in a country, the higher the level of class voting in that country. This is evidence against the hypothesis stated in Section 2, and it suggests that assumptions used when deducing this macro-hypothesis from micro-theory need to be revised.

Explaining trends within countries

When explaining the decline in class voting in most countries we adduced four factors. We hypothesized that if the standard of living in a country increases, the percentage of its population that is mobile grows, its union density descents, and the size of its manual class decreases, then the level of class voting in that country will decrease. In our multi-level model, of the four coefficients for these explanatory variables at the year-level, only the coefficients for the standard of living and union density factors differ significantly from zero. The coefficient for standard of living is in the expected direction, but the sign of the coefficient for union density is not. Furthermore, on the basis of the multivariate multi-level analyses, the hypotheses concerning the effects of the percentage of mobile and percentage of manual workers on levels of class voting have to be rejected.

A surprising result of our analyses is that the sign of the coefficient pertaining to union density at the year-level is in the unexpected direction. This result implies that the higher the level of union density in a country becomes, the lower the level of class voting in that country becomes. The figures on union density in Table A.1 in Appendix A, hint at an explanation for this unexpected finding. The listed percentages indicate that in most countries the union density has been relatively stable over-time, but that in Denmark, Finland and Sweden, substantial changes in union density have occurred. In these countries, the levels of union density were high to begin with, and increased over the period under investigation. For example, in Sweden the percentage of the labour force that belonged to a union, increased from 62 per cent in 1950 to 93 per cent in 1990. Therefore, it is plausible that the growth in union density was not only a growth in density among manual workers, but disproportionably one among nonmanual workers. This might explain, under the assumption that nonmanual class workers who are union members are more likely to vote for a left-wing party than nonmanual class workers who are not union

members, why the growth of union density led to a decline in the level of class voting in these countries. In the theoretical section of this chapter, when deriving macro-hypotheses from individual hypotheses, we already hinted that the relationship between union membership and class voting was not straightforward.

In concluding our presentation of the coefficients from the multi-level models, we should add one further piece of evidence. Applying multi-level models, we tested the hypothesis that the higher the standard of living in a country at a certain point in time, the lower that country's level of class voting at that time. An extra prediction that can be deduced in line with this hypothesis, states that in countries where the standard of living rose more sharply than in other countries, the levels of class voting dropped more strongly. A test of this prediction is not superfluous since we found a decrease in the level of class voting for most countries. Furthermore, we know that the standard of living in a country is positively correlated with time.[11]

Evidence bearing on the prediction that larger rises in the standard of living in a country lead to more marked declines in class voting in that country, is presented in Table 4.4. In this table we present the linear trend-parameter in the level of class voting, in the standard of living, in the percentage of manual workers, in the percentage of intergenerational mobile and in union density in all twenty countries. The trend-parameters for the level of class voting are, of course, the same as those presented in Table 3.3 in Chapter 3. If our prediction holds, we expect that the more positive the trend-parameters for standard of living are, the more negative the trend-parameters for the level of class voting in this country will be. As expected, the correlations of the trend in standard of living with the trend in class voting takes the value -0.39 ($p=0.04$).[12] This result therefore corroborates our hypothesis. The correlation between the trend-parameter of union density and that of the level of class voting also has a large negative value (-0.36; $p=0.07$). The correlations between the trend-parameter of the level of class voting and the trend-parameters of the two remaining explanatory variables, percentage manual (0.25; $p=0.14$) and percentage mobile (-0.04; $p=0.44$), do not significantly differ from zero. Concluding, this extra test confirms the results from the earlier analyses: the higher the standard of living in a country becomes, the lower the level of class voting becomes. Furthermore, these results confirm the idea that rising union density in some countries generated a decline in the level of class voting within these countries.

4.6 Conclusions

Recognizing that substantial differences in levels of class voting existed between countries and that declines in these levels occurred in most of the Western industrialized countries over the postwar period, in this chapter we aimed to test

explanations for this variation in levels of class voting. The specific explanations we tested were mainly suggested in studies that appeared during the first and second generation of research on stratification and politics. The general idea of these explanations was that variations in the social and political characteristics of countries were responsible for differences in levels of class voting between these countries and trends within these countries. The social and political characteristics suggested ranged from variations in ethnic diversity to rises in the general standard of living, to differences in the prominence of class issues in politics. However, until now these explanations had not been subjected to strong empirical tests of large datasets and using multivariate techniques.

In this chapter we improved upon earlier studies by putting the suggested explanations to strong tests. On the basis of individual-level assumptions we formulated concrete hypotheses explaining the level of class voting in countries in terms of seven social and political characteristics of these countries. Subsequently, we tested these hypotheses using a dataset containing data for twenty Western industrialized countries and over numerous points in time in the period 1945-1990. This large dataset lessened the chance of not accepting hypotheses due to a lack of statistical power, when in reality these hypotheses hold. Furthermore, our large dataset allowed us to test hypotheses using multivariate techniques. The employed tests of the hypotheses resulted in somewhat different conclusions for explanations for between-country and over-time variation in class voting.

When examining between-country variation, the test revealed that two out of the seven characteristics had a significant effect in line with what was expected by our hypotheses. First, the higher the religious and ethnic diversity among a country's population, the lower its level of class voting. Second, the higher the union density in a country, the higher the level of class voting in that country. Consequently, our analyses investigating differences across countries, suggested a rejection of the other five hypotheses. For four characteristics - a country's income differences, the size of the manual class, standard of living, and class as an issue - no significant effects were found. Of a fifth characteristic an effect was found that was significant, but in the unexpected direction: the higher the percentage of mobile persons in a country, the higher the level of class voting in that country.

When investigating the extent to which changes over-time within countries could be explained by changes in the social and political characteristics within these countries, significant effects were found for only two factors. One was in the expected direction: the higher the standard of living in a country, the lower the level of class voting becomes in that country. The other was in the unexpected direction: the higher a country's union density, the lower the level of class voting becomes in that country. An additional analysis showed how a growth in union density could lead to a decline in the level of class voting, probably because of a rise in union

membership among nonmanual workers in some countries.

The falsification of many of the hypotheses of this chapter, in our view, does not necessitate their outright rejection. In this chapter we sought to derive various specific macro-hypotheses from a single general individual theory. We did so to bring order into a seemingly unrelated list of hypotheses. Yet, this was not a goal in itself. When deriving macro-predictions from micro-statements, additional assumptions were made. In some cases these assumptions appeared plausible. In other cases they seemed less so. For example, we made the assumption that as the overall union density in a country increases, the density among manual workers increases to more or less the same degree as that among members of the nonmanual classes. We have already provided some indication that this assumption might be wrong. We would like to stress that where hypothesis testing indicates that a derived hypotheses can not pass an empirical test, such an outcome does not require the outright rejection of the general theory. We would say that the general theory is needed to suggest ways in which our specific hypotheses might be amended. A rejection of derivations thus supports the goal of building a complete theory, because it suggests the limits of current specific hypotheses. An occasionally forgotten goal in deriving current macro-hypotheses from corroborated micro-statements is to find conditions under which these macro-hypotheses might not hold. In fact, such conditions form the bridge between micro- and the macro-levels of analysis (Silverman 1991; Pammett 1991).

To make progress on the existing literature on stratification and politics, we continue by focusing on two explanations for variation in countries' levels of class voting that apply such a macro-micro-macro link. When doing so, we remain firmly within a class perspective. We do so, not only because a fullblooming alternative perspective explaining the findings of differences between countries and trends within countries seems to be lacking.[13] We also do so, because a refutation of the hypothesis that a person's social class - measured in a certain way - displays in all Western industrialized countries in all elections the same relationship with voting - calculated in a certain way -, does not imply the abandonment of a class perspective. It may be that the specific assumptions behind the measurement of class may be at fault. These assumptions may have their shortcomings, because the strength of the relationship between class and voting has been determined using the wrong analytical techniques. Furthermore, the assumptions may be flawed, because it is not only a person's own social class that influences that person's vote, but also the class of that person's significant others, such as parents.

It is in this spirit that in Chapter 5 we focus on the effects of varying composition of the manual and nonmanual classes on class voting. This class composition explanation implies the micro-level assumption that the voting behaviour of individuals can be explained by their membership of a sub-class of the manual or

nonmanual class. Furthermore, the explanation invokes the bridge-assumption, or condition, that the countries differ in the composition of the manual and nonmanual class. If both the micro- and bridge assumptions hold, then the macro-level effect of the composition of the manual and nonmanual classes on the level of class voting in that country, might be in order.

In Chapters 7, 8 and 9 of this study we pay attention to the macro-micro-macro explanation of variation in class voting which invokes rates of intergenerational class mobility as an explanatory variable. (Erikson & Goldthorpe 1992: 380-381). Macro-statements such as "the more mobility within a country, the lower this country's level of class voting" leave the individual mechanism by which mobility has its effects unspecified, but hint at several quite different mechanisms. It may be that mobile individuals display voting behaviour which is different from that of stable individuals; it also may be the case that the voting behaviour of stable individuals in a society with more mobility differs from the voting behaviour of stable individuals in a society with less mobility (cf. De Graaf & Ultee 1990; De Graaf et al. 1995). In the first instance, aggregating a statement with individuals as units and using the absolute properties of these individuals, yields a macro-hypothesis like the one tested in this chapter; in the second instance the statement to be aggregated also has individuals as units but this statement involves contextual characteristics of these individuals. Again, such statements form an attractive bridge between micro- and macro-levels of analysis.

5 Effects of Composition of Manual and Nonmanual Classes on Manual/nonmanual Class Voting

5.1 Introduction[1]

In this chapter we once more address a question on the relationship between stratification and voting behaviour. In previous chapters concerning this relationship, we used a manual/nonmanual class dichotomy when measuring levels of class voting. In Chapter 3, we found trends in levels of class voting within most countries and substantial differences in these levels between countries. In Chapter 4, we tested, using multivariate analysis, several macro hypotheses explaining these trends and differences, and suggested that it would be worthwhile to re-examine the individual hypotheses behind these macro hypotheses. Indeed the way the first generation ascertained a country's level of class voting presupposes such an individual hypothesis. It states that a person's vote depends upon this person's belonging to either the manual or the nonmanual class, with the implicit assumption that these classes are internally homogeneous or that the sizes their "sub-classes" have not changed or do not differ between countries.

In the present chapter we focus on an explanation of varying levels of class voting that goes back to the individual-level and invokes a more detailed individual hypothesis than the one behind our indices of a country's level of class voting. This class composition explanation - as we call it - was already hinted at in studies of the first generation of research into social stratification and politics (Alford 1963; Lipset 1960), and was fully stated in studies of the third generation (Heath et al. 1991; Goldthorpe 1994; Hout et al. 1994).[2] The class composition explanation holds that the voting behaviour of an individual can be explained in terms of that individual's membership of a sub-class of the manual or nonmanual class. The explanation furthermore holds that there are differences in the composition of the manual and nonmanual classes between countries and periods. Therefore, variations in levels of class voting found between countries or between periods, when using a manual and nonmanual class distinction might, to some extent, be explained by variations in the composition of the manual and the nonmanual classes. For example, when the relative size of the skilled manual worker group increases while that of the unskilled manual workers decreases, and

when - as generally is the case - skilled workers are less left-wing than unskilled workers, then the manual class as a whole will become more right-wing, and a decline of manual/nonmanual class voting would be registered. This decline would then not be due to a process of class dealignment, but solely due to a class composition effect. A similar argument can be given to explain differences in levels of manual/nonmanual class voting between countries. The finding that in some countries the level of class voting is higher than in others might be due to the fact that in certain countries the proportion of unskilled manual workers within the manual class as a whole, is smaller than in other countries.

In studies of the first generation of research on stratification and voting behaviour no comparable detailed class scheme was available to test the class composition explanation. Recent developments in measurement procedures in this research area, however, have made it possible to apply more detailed class schemes in cross-national or over-time comparative studies. One such class scheme is the so-called "EGP" class scheme, that was originally developed for class mobility research (Erikson et al. 1979; Erikson & Goldthorpe 1992), but can be applied in research on stratification and politics (Heath et al. 1985; Evans et al. 1991). This class scheme distinguishes between class members that have distinct interests (Evans 1992) and consequently might be expected to have different voting behaviour (Evans et al. 1989). The EGP classification, as outlined in Chapter 2, divides the manual classes into the skilled manual class, the unskilled manual class, and the agricultural workers class, and the nonmanual class into the service class, the routine nonmanual class, the petty bourgeoisie, and farmers.

Using this EGP classification, we test the class composition explanation for variation in class voting, by addressing the following question: *To what extent can differences across democratic industrialized countries and changes within these countries in levels of class voting, when measured by the manual/nonmanual class distinction, be explained by differences between these countries and changes within these countries in the composition of the manual and the nonmanual classes?*

When addressing this question we analyse survey data from many countries and from various years over a substantial period, that contain information about respondents' occupations such that it is possible to classify respondents into the detailed EGP classes. For this study, as discussed in Chapter 2, we collected such surveys and merged these into a single datafile. It is this datafile on individual respondents from 113 surveys held in sixteen countries covering the period 1956-1990, that is analysed in this chapter. From these data we selected male respondents aged eighteen years or older who had a valid score on class and voting behaviour. These restrictions left us with a total of 75,783 respondents.

The outline of this chapter is as follows. In Section 2, we discuss relevant characteristics of the sub-classes. Furthermore, we formulate and test hypotheses on the voting behaviour of the EGP classes. In Section 3, we investigate the extent to which changes in the composition of the manual and nonmanual classes have occurred, and the extent to which cross-country differences exist. Thereafter, in Section 4, we answer the central question of this chapter, i.e. we examine the extent to which variations in levels of manual/nonmanual class voting can be explained by variations in the composition of the manual and nonmanual classes in these countries and periods. In Section 5 we discuss the results.

5.2 Sub-classes and their voting behaviour

Before investigating the extent to which differences in the composition of the manual and nonmanual class can account for differences in the levels of class voting, we test the hypothesis that the voting behaviour of the various sub-classes of the manual and nonmanual class differs. This is of relevance, because if these sub-classes did not differ in voting behaviour, variations in the class composition would not be able to explain variations in class voting. Therefore, some relevant characteristics of the classes that can be distinguished according to the EGP class scheme are discussed. On the basis of these characteristics predictions about the voting behaviour of the classes are specified. A summary of the main characteristics of the sub-classes and their expected voting behaviour is presented in Table 5.1.

Following Goldthorpe, the main interests of EGP class members can be traced back to their conditions of employment stipulated in their labour contracts (see Goldthorpe 1982; Erikson & Goldthorpe 1992). This leads to several characteristics that are pertinent to the voting behaviour of members of the different classes. These include the amount of income, the degree of occupational security (unemployment prospects, sick pay regulations, promotional aspects, etcetera), the collectivistic possibilities to strive for their interests, and the chances of inheriting capital (see also: Evans 1992; Heath et al. 1985). On the basis of these characteristics, members of the various EGP classes make the decision to vote for a specific political party. In this way we assume - as we did in Chapter 4 - that voting behaviour has an economic purpose.[3] People know on which side their bread is buttered, and they realize that they can benefit from voting for a party that has political goals nearest to their own economic interest. Members of a certain class therefore vote for the party that serves their class interests best.

When doing so, class members can vote for left-wing and right-wing political parties. In general, left-wing parties are in favour of active redistribution of

Table 5.1. Characteristics and expected left-wing voting behaviour of EGP classes

EGP classes	Security	Wages	Collective Action	Inherit	Left-wing Voting
Service class	++	++	+-	-	-
Routine nonmanual	+	+	+-	-	+-
Petty bourgeoisie	-	+-	-	+	--
Farmers	-	+-	-	+	--
Skilled manual	-	-	+	-	+
Unskilled manual	--	--	+	-	++
Agricultural labourers	--	--	+	-	+

wealth by central government, whereas right-wing parties are not (Lipset 1960). Furthermore, left-wing parties are more in favour of better occupational security regulations than are right-wing parties. The left-wing parties try to accomplish their preferred policies by raising taxes and by wage regulations. In addition, left-wing parties are more in favour of collective organizations like labour unions, and of regulations on heritages than are right-wing parties.

The main economic interests of the EGP classes and the related policy preferences of left-wing and right-wing political parties allow us to make predictions about the voting behaviour of class members. In doing so, a major distinction between employer and employee classes should be recognized.

Employer classes, i.e. the petty bourgeoisie and farmers, can be expected to have the least left-wing voting behaviour of all classes. On the basis of their interests, employers are not in favour of wage regulations beneficial to the non-employer classes, have a high degree of occupational security, and strong possibilities for collective action among their employees in general. Furthermore, because left-wing parties strive for greater equality, they might do so by higher taxes on inheritances. Since the petty bourgeoisie and farmers in particular are inclined to donate their property to their children, members of these classes can be assumed to be opposed to left-wing parties.

Employee classes can on the basis of their interests be expected to have more left-wing voting behaviour than employers. However, within the employee classes there are also significant differences in labour contracts and conditions of employment. Consequently, significant differences in voting patterns between the service class, manual working classes, and the routine nonmanual class can be expected.

According to their interests, members of the service class are likely to be the most right-wing of the employee classes. Members of the service class enjoy

conditions of employment which are decidedly advantaged relative to those of other grades of employees, especially when viewed in lifetime perspective. The service class, therefore, has a substantial stake in the status quo. Thus, the expectation must be that this class will constitute an essentially conservative element within modern societies (Goldthorpe 1982: 179-80), and that members of this class are likely to vote for a right-wing political party.

The manual classes (skilled, unskilled and agricultural labourers) can be expected to be the most left-wing. Their members have least occupational security, lowest wages, and consequently strongest incentives for collective action. Thus, it is in their interest to vote for parties that are in favour of a policy that is beneficial to them. Within the manual working classes, it can be expected that unskilled workers are more likely to vote for left-wing parties than are skilled workers. In general, the employment conditions of the unskilled are poor compared to those of the skilled manual workers. Furthermore, the skilled manual workers have higher job security, and better chances of getting a job when they are unemployed. However, Evans (1992) failed to find clear differences between the employment relations of skilled workers and unskilled workers in Britain. If this also holds for other countries, these classes can be expected to have similar voting behaviour.

Special attention must be paid to the voting behaviour of agricultural labourers, whose voting behaviour is difficult to predict. In principle, agricultural labourers are in the same position as skilled or unskilled labourers. Therefore, they are expected to have left-wing voting tendencies. However, many agricultural labourers are sons of farmers, and some know that they will inherit their father's farm in the near future. Thus, agricultural labourers are a mixture of "real" agricultural labourers and (future) farmers. Here we are applying the idea that voting behaviour is not only based on present interests, but also on future interests. Thus, because it is the interest of farmer's sons that the state does not restrict inheritance possibilities, and because farmer's sons are likely to vote according to their future interests, the voting behaviour of agricultural labourers can be expected to be somewhere between that of "real" agricultural labourers and that of farmers.

Finally, the employment conditions of the routine nonmanual class are between those of skilled manual workers and service class workers. The members of this class have levels of job security, and wages which in general are higher than those of skilled manual class members, but lower than those of service class members. Therefore, it can be anticipated that the voting patterns of the routine nonmanual class will be less left-wing than those of the skilled manual classes, and more left-wing than those of the service class.

The next question is whether our predictions on the differences in voting be-

Table 5.2. Percentages left-wing voters by EGP classes in sixteen countries, 1956-1990

		Unskilled manual	Skilled manual	Agric. labourers	Routine nonmanual	Service class	Petty bourg.	Farmers
Australia	1961-70	70.3	69.4	62.7	49.3	37.5	47.2	19.6
	1971-80	69.6	74.1	66.6	50.1	35.6	42.3	12.8
	1981-90	68.6	63.7	49.4	52.6	43.9	40.9	16.6
Austria	1971-80	74.1	74.5	30.7	43.5	52.0	26.0	11.1
	1981-90	62.1	63.3	35.7	57.6	47.6	24.3	5.7
Belgium*	1971-80	44.7	54.4	-	24.1	21.0	15.7	13.0
Britain	1961-70	65.8	67.8	56.2	40.2	24.6	23.8	14.4
	1971-80	58.0	57.3	25.4	33.0	24.5	15.1	5.4
	1981-90	55.9	52.4	44.0	30.6	23.8	27.0	13.9
Canada	1971-80	17.5	17.8	23.8	16.1	12.6	6.8	24.1
Denmark*	1971-80	73.1	74.0	-	50.3	31.4	19.4	3.9
	1981-90	70.2	77.9	-	49.2	18.0	5.8	8.0
Finland	1971-80	73.1	75.6	68.4	53.3	32.7	31.4	9.3
France	1971-80	72.4	63.9	58.0	60.2	45.0	30.3	25.2
Germany	1961-70	63.0	62.3	53.3	53.9	46.9	30.6	3.3
	1971-80	54.1	58.4	39.5	41.5	39.0	15.4	7.1
	1981-90	50.9	49.7	33.3	36.0	33.5	17.8	12.5

Table 5.2. (Continued)

		Unskilled manual	Skilled manual	Agric. labourers	Routine nonmanual	Service class	Petty bourg.	Farmers
Ireland	1981-90	22.6	21.0	21.4	26.3	10.3	3.0	2.8
Italy	1961-70	63.9	58.1	45.7	38.1	25.0	42.9	40.8
	1971-80	73.9	68.7	50.0	46.4	53.1	53.9	30.6
	1981-90	57.9	53.8	55.3	46.6	42.2	32.7	33.3
Netherlands	1961-70	45.0	38.9	30.7	27.2	19.8	17.8	5.1
	1971-80	51.2	50.8	27.1	34.4	27.8	16.8	5.8
	1981-90	47.4	43.8	32.6	31.7	27.4	21.3	10.5
Norway	1961-70	75.6	76.8	45.4	60.3	26.7	48.4	21.9
	1971-80	70.0	65.0	69.2	50.0	30.2	39.3	13.0
	1981-90	52.2	54.6	46.7	36.4	26.6	37.1	23.9
Sweden	1971-80	71.4	80.7	46.1	50.0	38.9	26.6	6.6
	1981-90	47.8	50.9	20.0	29.0	29.2	18.5	7.1
Switzerland	1971-80	45.6	39.8	0.0	29.8	16.5	14.8	5.3
United States	1956-60	48.6	51.7	66.6	42.3	33.4	49.0	43.4
	1961-70	68.3	61.1	58.4	61.3	56.7	55.9	53.8
	1971-80	54.9	48.4	53.0	42.4	36.1	45.6	31.5
	1981-90	47.3	40.0	27.3	37.6	31.0	29.4	41.8
All data	1945-90	56.9	55.3	43.4	40.6	32.6	29.8	18.3

Note: Not all figures for Belgium and Denmark could be given, because in these countries agricultural labourers are classified as unskilled manual workers.

haviour between the EGP classes can be confirmed empirically. To answer that question we examine the voting behaviour of the various EGP classes in our dataset. Therefore, in Table 5.2 the percentages of left-wing voters in the various EGP classes are presented for the sixteen countries and, where our dataset is sufficient, for four periods: 1956-1960, 1961-70, 1971-1980, and 1981-1990. We find that the voting behaviour of the unskilled and skilled manual classes is very similar in most of the countries. This hints at the fact that - similar to the situation in Britain as described by Evans (1992) - the employment relations of these two classes are not very different. However, the major conclusion that can be drawn is that substantial differences in voting behaviour exist between the other EGP classes. Agricultural labourers are in general less left-wing than unskilled and skilled manual workers. Their voting behaviour resembles that of the routine nonmanual class. The service class is significantly less inclined to vote for left-wing parties than is the routine nonmanual class. The voting behaviour of the petty bourgeoisie does not differ much from that of the service class. Only in Austria, Denmark and Germany are the petty bourgeoisie far more right-wing than the service class. Finally, the farming class by far contains the most right-wing voters. Only in Canada and the United States are farmers relatively left-wing. Thus, the conclusion is that in all countries and periods under investigation, the EGP classes differ substantially in their voting behaviour, and that in general the pattern of differences in voting behaviour between the EGP classes is like we expected.

5.3 Variation in composition of manual and nonmanual classes

Having established the expected differences in voting behaviour between the subclasses of the manual and nonmanual classes, it is of interest to pay attention to the composition of manual and nonmanual classes. In particular, we raise the question of whether cross-national differences in the composition of the manual and nonmanual classes have existed and whether changes have occurred in the countries under investigation. After all, if it is assumed that the composition of the manual and nonmanual classes did not vary at all, then any detected variation in manual/nonmanual class voting can not possibly be explained by the class composition explanation.

In Table 5.3 the distributions of the EGP classes are presented over four periods for the various countries. Because we are interested in composition changes within the manual and within the nonmanual classes, the percentage figures for the unskilled, skilled, and agricultural labourers sum to 100. So do the percentages for the routine nonmanual, service class members, petty bourgeoisie

and farmers. According to the figures in Table 5.3, there are substantial differences between countries with respect to the composition of the manual and nonmanual classes. The composition of the manual class shows some variation with respect to the agricultural class, although the differences become smaller over-time. This percentage is largest in the earliest period in Italy, and is smallest in Switzerland and the United States. For Italy in the period 1961-1970, however, the percentage of agricultural workers (28 per cent) has to be considered as an outlier. This is probably due to the small number of cases in the data for Italy in that period. With respect to the unskilled and skilled manual classes, it can be seen that the Irish case is an extreme one, with only 38 per cent of manual workers in the skilled manual class and 55 per cent in the unskilled manual class. The other extreme is France were 77 per cent of manual workers are in the skilled manual class and only 19 per cent in the unskilled manual class. The composition of the nonmanual class differs mainly in the percentages of farmers and service class members. In Britain, Canada, Germany, the Netherlands, Norway, Sweden and the United States, the service class forms the largest part of the nonmanual class. Furthermore, the farmers constitute a relatively large group in Austria, Canada, Denmark, Finland, Ireland and Italy.

In order to get an impression of the class-composition changes over-time in the composition of the manual and nonmanual classes, we present, in Table 5.4, summary measures for trends in the distribution of EGP classes within the manual and nonmanual classes.[4] For every country a linear regression analysis was performed, where the percentages in a year were regressed on a variable "year". The obtained trend-parameters represent the change in the relative percentages of distribution per year. For example, a trend-parameter that has a value one, indicates that the relative size of that class grows by one per cent each year. Positive trend-parameters indicate a growth and negative trend-parameters a decline in the relative size of a class. Since only one survey was available for Belgium, Canada, and France, and since for Ireland only two surveys in successive years were accessible, no trend-parameters for these countries were estimated.

The parameters in Table 5.4 show that within the nonmanual class the major change during the last decades has been the substantial growth of the service class. Furthermore, a decrease in the size of the farmer population has occurred in all countries. Except in Australia, Denmark, Ireland and Norway, there has also been a decline of the petty bourgeoisie. The picture for the routine nonmanual class is more mixed. With regard to the manual class, there has been a decrease in the percentage of agricultural labourers in almost all countries. For unskilled and skilled manual workers, the general picture is somewhat vague.

Summarizing, it is clear that substantial differences between countries exist in

Table 5.3. Composition (in percentages) of manual and nonmanual classes in sixteen countries, 1956-1990

		Manual classes			Nonmanual classes			
		Unskilled manual	Skilled manual	Agric. labourers	Routine nonmanual	Service class	Petty bourg.	Farmers
Australia	1961-70	38.4	56.2	5.3	21.5	48.8	8.7	20.9
	1971-80	42.6	52.0	5.3	21.5	44.9	19.7	13.7
	1981-90	42.1	52.5	5.2	19.1	62.1	11.3	7.2
Austria	1971-80	45.3	49.3	5.2	16.6	42.7	9.8	30.7
	1981-90	30.3	66.7	3.5	26.0	44.8	8.6	20.4
Belgium*	1971-80	49.0	50.9	-	57.5	16.1	19.8	6.5
Britain	1961-70	43.5	53.3	3.1	23.9	54.1	16.3	5.5
	1971-80	43.0	52.6	4.2	17.2	62.1	15.9	4.7
	1981-90	40.4	57.1	2.4	12.5	70.0	14.8	2.5
Canada	1971-80	42.6	53.1	4.2	15.4	50.9	12.9	20.7
Denmark*	1971-80	53.2	46.7	-	23.2	32.7	17.4	26.6
	1981-90	44.3	55.6	-	38.0	28.4	19.3	14.2
Finland	1971-80	29.2	65.5	5.1	14.4	36.3	11.2	37.9
France	1971-80	19.0	76.8	4.0	19.7	45.3	14.9	19.8
Germany	1961-70	31.8	65.0	3.1	18.4	60.8	10.2	10.4
	1971-80	26.0	71.8	2.0	26.0	59.1	8.5	6.2
	1981-90	22.6	74.8	2.4	21.7	64.1	9.4	4.6

Table 5.3. (Continued)

		Manual classes			Nonmanual classes			
		Unskilled manual	Skilled manual	Agric. labourers	Routine nonmanual	Service class	Petty bourg.	Farmers
Ireland	1981-90	55.2	37.6	7.1	8.8	42.9	15.4	32.7
Italy	1961-70	25.3	46.6	27.9	41.1	13.7	27.2	17.8
	1971-80	35.2	54.0	10.7	25.5	28.5	31.0	14.8
	1981-90	33.9	59.8	6.2	30.9	41.5	16.3	11.1
Netherlands	1961-70	38.3	53.3	8.3	23.2	49.0	15.4	12.2
	1971-80	35.0	59.0	5.9	26.4	51.9	10.4	11.1
	1981-90	37.7	57.3	4.9	26.1	59.9	7.6	6.2
Norway	1961-70	54.4	42.7	2.8	15.3	48.2	8.7	27.7
	1971-80	37.6	59.5	2.8	12.4	52.0	14.9	20.6
	1981-90	35.2	59.5	5.2	14.1	62.3	11.4	12.1
Sweden	1971-80	35.0	57.7	7.2	13.4	53.0	16.7	16.7
	1981-90	45.1	50.0	4.9	17.4	59.5	15.1	7.8
Switzerland	1971-80	35.7	63.0	1.2	23.2	45.4	13.8	17.4
United States	1956-60	54.4	44.7	0.7	16.6	47.5	16.3	19.4
	1961-70	48.9	46.2	4.7	19.4	48.2	18.5	13.6
	1971-80	47.0	51.1	1.8	19.6	64.0	8.2	8.1
	1981-90	50.1	48.1	1.6	19.5	64.2	9.8	6.3

Note: Not all figures for Belgium and Denmark could be given, because in these countries agricultural labourers are classified as unskilled manual workers.

Table 5.4. Linear trends (change / year) in composition of manual and nonmanual classes in sixteen countries

	Manual classes			Nonmanual classes				Range	N. of cases
	Unskilled manual	Skilled manual	Agric. labourers	Routine nonmanual	Service class	Petty bourg.	Farmers		
Australia	0.17	-0.08	0.00	-0.13	0.78	0.00	-0.64	1965-90	9
Austria	-1.04	1.17	-0.12	0.57	0.30	-0.20	-0.67	1974-89	4
Belgium	-	-	-	-	-	-	-	1975	1
Britain	-0.24	0.29	-0.04	-0.58	0.80	-0.07	-0.14	1964-90	12
Canada	-	-	-	-	-	-	-	1984	1
Denmark	0.08	-0.09	-	0.74	0.61	0.34	-1.70	1971-81	6
Finland	-1.74	3.71	-1.96	4.04	4.08	-0.01	-8.11	1972-75	2
France	-	-	-	-	-	-	-	1978	1
Germany	-0.49	0.48	0.00	-0.27	0.58	-0.03	-0.27	1969-90	13
Ireland	-	-	-	-	-	-	-	1989-90	2
Italy	0.46	0.76	-1.22	-0.52	1.60	-0.69	-0.39	1968-85	3
Netherlands	0.24	-0.09	-0.15	0.08	0.70	-0.40	-0.38	1970-90	14
Norway	-0.61	0.46	0.14	0.02	0.68	0.02	-0.73	1965-90	7
Sweden	0.56	-0.43	-0.12	0.22	0.36	-0.08	-0.49	1972-90	2
Switzerland	1.18	-1.46	0.27	-1.65	2.78	-1.04	-0.08	1972-76	2
United States	-0.13	0.16	-0.02	0.04	0.65	-0.28	-0.41	1956-90	24

the composition of the manual and nonmanual classes. Countries differ particularly in the (relative) size of the farming and agricultural labourer groups. Furthermore, substantial changes have occurred in the composition of the manual and nonmanual classes during the past decades. Of these changes a growth of the service class and a decrease in the farming population are the most notable. Thus, these findings imply that it is possible that variation in the composition of the manual and nonmanual classes to some extent are responsible for variation in levels of manual/nonmanual class voting.

5.4 Results

To examine the extent to which variation in manual/nonmanual class voting can be explained by variation in the composition of the manual and nonmanual classes, we again analyse our dataset on individual respondents from sixteen countries over the years 1956-1990.

To begin with we constructed two by two tables cross-classifying class (manual/nonmanual) by vote (left-wing/right-wing). On the basis of these class voting tables, Thomsen indices were calculated as measures of the strength of the relationship between class and vote. These observed Thomsen indices give us a picture of the differences between countries and the trends within countries in class voting. These indices are presented in column A of Table 5.5. We find that the observed Thomsen indices differ substantially between the countries. Because the same data are involved as in Table 3.2 and 3.4, we again find that the Scandinavian countries and Britain have the highest levels of class voting, whereas the United States has the lowest. In addition, we also find substantial within-country variance in levels of class voting, i.e. we find a declining trend in class voting within most countries.

Explaining differences between countries

Next, we address the research question central in this chapter, i.e. we investigate the extent to which differences in manual/nonmanual class voting between countries are due to differences in the composition of manual and nonmanual classes between these countries. The most obvious way to examine the link between the class compositions and the level of class voting in a country, is to directly link a single measure of a country's class composition with a single measure of class voting in that country. However, because differences might exist in the composition of both the manual and the nonmanual class, and since within

the manual and nonmanual class more than two classes can be distinguished, no single measure of a country's class composition is applicable. For this reason, following Heath and his colleagues (1985: 36) when they analysed the effects of changing class structures on the election results, we will do some simulations. These simulations take two consecutive steps.

As a first step, we constructed two by two class voting tables and calculated the Thomsen indices of each year, assuming *constant voting behaviour for the EGP classes across countries and time*. To be able to do this we had to decide what voting behaviour of the EGP classes to choose as a baseline. To avoid dependence upon incidental changes we decided not to choose the voting behaviour of a single country in a specific period but rather the average voting behaviour of the EGP classes over all countries and years in our dataset. We already presented this average voting behaviour of the EGP classes in the bottom row of Table 5.2. The Thomsen indices obtained in this way are reported in column B of Table 5.5.[5] The closer the Thomsen indices obtained in this first step are to the observed Thomsen indices, the more the varying composition of the EGP classes can be held responsible for differences in class voting between countries. These outcomes, however, do not tell us about the relative amount of variation that can be explained by variation in the class composition and variation in the voting behaviour of the EGP classes.

Therefore, as a second step, we examine the extent to which variation in the voting behaviour of the EGP classes, controlling for variation in the composition of these classes, is responsible for variation in manual/nonmanual class voting. To do this, we calculated Thomsen indices under the assumption of *constant sub-class distributions over countries and time*, but varying voting behaviour of the EGP sub-classes. As a baseline we chose the mean class distribution over all years and countries. The calculated Thomsen indices obtained from this analysis are presented in column C of Table 5.5. The closer the Thomsen indices obtained in this second step are to the observed Thomsen indices, the more the variation in voting behaviour of the EGP classes can explain variation in levels of class voting. Furthermore, if the Thomsen indices obtained in this second step are closer to the observed Thomsen indices than the Thomsen indices obtained in the first step, then the between-country variation in the composition of the manual and nonmanual classes explains to a lesser extent the between-country variation in class voting, than does the between-country variation in the voting behaviour of these sub-classes.

When examining the relative contributions of the two factors in explaining the variation in levels of class voting between countries, we first take a superficial look at the entries in Table 5.5. Subsequently, to come to more quantitative conclusions, we apply linear regression to the entries of the table.

Table 5.5. Observed and simulated levels of class voting (measured by Thomsen index) in sixteen countries, 1956-1990

		Observed	Between-country simulations			Over-time simulations		
			Vote Constant	Class Constant	Vote & Class Constant	Vote Constant	Class Constant	Vote & Class Constant
		A	B	C	D	E	F	G
Australia	1965	1.43	1.02	1.48	1.10	1.26	1.34	1.15
	1967	1.24	0.99	1.39	1.10	1.22	1.22	1.15
	1973	1.62	1.00	1.76	1.10	1.20	1.61	1.15
	1979	1.12	0.94	1.06	1.10	1.10	1.09	1.15
	1984	0.79	0.93	1.16	1.10	1.11	0.84	1.15
	1985	0.66	0.91	1.00	1.10	1.10	0.74	1.15
	1986	0.90	0.92	1.13	1.10	1.09	0.94	1.15
	1987	1.10	0.94	1.39	1.10	1.12	1.13	1.15
	1990	0.89	0.95	1.18	1.10	1.13	0.83	1.15
Austria	1974	1.55	1.10	1.52	1.10	1.27	1.47	1.14
	1985	1.30	0.95	1.38	1.10	1.04	1.43	1.14
	1988	0.55	0.98	1.04	1.10	0.99	0.81	1.14
	1989	0.97	1.02	0.97	1.10	1.14	0.94	1.14
Belgium	1975	1.30	0.83	-	1.10	1.30	1.30	1.30
Britain	1964	1.83	0.92	2.03	1.10	1.33	1.89	1.37
	1966	1.68	0.90	1.83	1.10	1.31	1.80	1.37
	1970	1.48	0.96	1.51	1.10	1.38	1.45	1.37
	1974	1.48	0.93	1.72	1.10	1.36	1.49	1.37
	1979	1.29	0.94	1.53	1.10	1.36	1.30	1.37
	1983	1.46	0.94	1.84	1.10	1.37	1.45	1.37
	1985	1.51	0.94	1.72	1.10	1.38	1.50	1.37
	1986	1.29	0.96	1.27	1.10	1.41	1.23	1.37
	1987	1.33	0.94	1.56	1.10	1.38	1.32	1.37
	1988	1.34	0.94	1.32	1.10	1.38	1.31	1.37
	1989	1.01	0.95	1.30	1.10	1.39	0.99	1.37
	1990	1.00	0.95	1.25	1.10	1.38	1.04	1.37
Canada	1984	0.23	1.04	0.14	1.10	0.23	0.23	0.23
Denmark	1971	1.96	1.00	-	1.10	1.89	2.12	2.05
	1972	2.77	1.25	-	1.10	2.48	2.26	2.05
	1975	1.99	1.09	-	1.10	2.12	1.89	2.05
	1977	2.13	1.07	-	1.10	2.03	2.18	2.05
	1979	1.72	1.06	-	1.10	2.04	1.74	2.05
	1981	2.11	0.95	-	1.10	1.80	2.36	2.05
Finland	1972	2.75	1.26	2.23	1.10	2.32	2.57	2.08
	1975	1.69	1.07	1.74	1.10	1.92	1.86	2.08
France	1978	0.96	1.01	1.24	1.10	0.96	0.96	0.96
Germany	1969	0.84	0.96	1.18	1.10	0.89	0.73	0.83
	1975	1.05	0.91	1.22	1.10	0.87	1.00	0.83
	1976	0.93	0.91	1.19	1.10	0.86	0.89	0.83
	1977	1.03	0.89	1.46	1.10	0.81	1.02	0.83
	1978	0.94	0.89	1.14	1.10	0.81	0.95	0.83
	1979	0.75	0.90	0.92	1.10	0.81	0.77	0.83
	1980	0.80	0.91	1.02	1.10	0.81	0.81	0.83
	1982	0.77	0.92	0.87	1.10	0.84	0.76	0.83
	1984	1.01	0.89	1.43	1.10	0.80	1.03	0.83
	1986	0.70	0.90	1.14	1.10	0.79	0.75	0.83
	1987	0.50	0.93	0.77	1.10	0.80	0.48	0.83
	1988	0.99	0.89	0.91	1.10	0.80	0.89	0.83
	1990	0.58	0.92	0.84	1.10	0.85	0.56	0.83

Table 5.5. (Continued)

		Observed	Between-country simulations			Over-time simulations		
			Vote Constant	Class Constant	Vote & Class Constant	Vote Constant	Class Constant	Vote & Class Constant
		A	B	C	D	E	F	G
Ireland	1989	1.26	1.11	1.18	1.10	1.05	1.32	1.15
	1990	1.09	1.19	0.58	1.10	1.28	0.92	1.15
Italy	1968	0.73	0.82	1.19	1.10	0.59	0.91	0.65
	1975	0.85	0.95	1.12	1.10	0.68	0.82	0.65
	1985	0.58	0.01	0.71	1.10	0.69	0.61	0.65
Netherlands	1970	1.04	0.94	1.33	1.10	0.97	0.99	0.91
	1971	1.09	0.96	1.29	1.10	1.00	0.99	0.91
	1972	0.81	0.96	1.01	1.10	0.98	0.76	0.91
	1974	0.82	0.90	1.10	1.10	0.90	0.82	0.91
	1976	0.94	0.90	1.41	1.10	0.91	0.97	0.91
	1977	1.16	0.90	1.50	1.10	0.90	1.18	0.91
	1979	1.12	0.91	1.14	1.10	0.91	1.04	0.91
	1981	0.86	0.89	0.78	1.10	0.89	0.85	0.91
	1982	0.77	0.89	1.36	1.10	0.88	0.83	0.91
	1985	0.93	0.90	1.25	1.10	0.88	0.93	0.91
	1986	0.76	0.89	1.01	1.10	0.89	0.78	0.91
	1987	0.78	0.91	1.05	1.10	0.89	0.81	0.91
	1989	0.80	0.90	1.17	1.10	0.89	0.87	0.91
	1990	0.55	0.90	0.84	1.10	0.88	0.59	0.91
Norway	1965	1.85	1.10	1.77	1.10	1.35	1.80	1.29
	1972	2.02	1.08	2.05	1.10	1.33	1.88	1.29
	1977	1.36	1.05	1.42	1.10	1.29	1.34	1.29
	1981	1.26	1.00	1.19	1.10	1.24	1.27	1.29
	1985	1.49	0.98	1.29	1.10	1.27	1.44	1.29
	1989	0.84	0.99	0.82	1.10	1.29	0.83	1.29
	1990	0.73	0.93	0.90	1.10	1.23	0.77	1.29
Sweden	1972	1.81	1.01	1.76	1.10	1.61	1.74	1.54
	1990	0.98	0.95	1.16	1.10	1.46	1.03	1.54
Switzerland	1972	1.28	1.00	1.39	1.10	1.19	1.30	1.21
	1976	1.22	1.01	1.55	1.10	1.24	1.18	1.21
United States	1956	0.31	1.07	0.20	1.10	0.45	0.37	0.46
	1958	0.57	1.05	0.59	1.10	0.46	0.61	0.46
	1960	0.56	1.04	0.58	1.10	0.42	0.65	0.46
	1964	1.01	0.99	1.04	1.10	0.45	1.02	0.46
	1966	0.88	1.01	1.06	1.10	0.45	0.86	0.46
	1968	0.61	0.97	0.81	1.10	0.41	0.65	0.46
	1970	-0.53	1.00	-0.55	1.10	0.43	-0.58	0.46
	1972	0.72	0.95	0.95	1.10	0.48	0.68	0.46
	1973	0.59	0.96	0.71	1.10	0.47	0.58	0.46
	1974	0.49	0.92	0.73	1.10	0.47	0.49	0.46
	1975	0.56	0.94	0.88	1.10	0.47	0.61	0.46
	1976	0.20	0.97	0.32	1.10	0.46	0.17	0.46
	1977	0.94	0.97	0.78	1.10	0.48	0.92	0.46
	1978	0.52	0.93	0.44	1.10	0.46	0.50	0.46
	1980	0.48	0.96	0.73	1.10	0.46	0.53	0.46
	1982	0.71	0.95	0.80	1.10	0.46	0.69	0.46
	1983	0.59	0.95	0.68	1.10	0.46	0.60	0.46
	1984	0.64	0.92	0.46	1.10	0.47	0.62	0.46
	1985	0.32	0.96	0.36	1.10	0.49	0.34	0.46
	1986	0.55	0.96	0.63	1.10	0.48	0.55	0.46
	1987	0.38	0.95	0.40	1.10	0.48	0.37	0.46
	1988	0.19	0.93	0.16	1.10	0.48	0.18	0.46
	1989	0.22	0.94	0.15	1.10	0.47	0.19	0.46
	1990	0.28	0.95	0.03	1.10	0.49	0.24	0.46

A visual inspection of Table 5.5 reveals that the Thomsen indices obtained in the first step show only a limited variation between countries. The Thomsen indices obtained in the second step show a similar pattern of variation between countries as the observed Thomsen indices. In addition, the Thomsen indices that were obtained in the second step (column C) are in general closer to the observed Thomsen indices (column A), than to the results obtained in the first step (column B). However, in Germany and in the Netherlands, the Thomsen indices in column B are more similar to the indices in column A than to those in column C. For these countries in all years the Thomsen indices in column C have a larger value than those in columns A and B.

In order not to be too dependent on individual datasets and possible error in them, we present in Table 5.6 for each country the mean values of the calculated Thomsen indices of three periods: 1961-1970, 1971-1980, and 1981-1990. For these three periods we find that the mean of the Thomsen indices obtained under the assumption that voting behaviour was constant across the countries (and the EGP class distribution was allowed to vary), has a small level of variation across the countries. The mean of the Thomsen indices obtained when assuming the class distribution to be constant across countries (and the voting behaviour of the classes to differ), shows more variation across countries. More importantly, the Thomsen indices of the various countries, predicted under the assumption of constant class distribution, very much resemble the observed Thomsen indices, whereas the Thomsen indices predicted under the assumption of constant voting behaviour do to a much smaller extent. In other words, it seems that the differences between countries in the observed Thomsen indices can to a far smaller extent be explained by differences in the compositions of the manual and nonmanual classes in these countries, than by differences in the voting behaviour of the sub-classes between these countries.

To quantify the relative contribution of both explanations in accounting for variations in class voting, we estimated parameters of a simple linear regression model on the entries of Table 5.6. To do this, we took for each period separately the observed Thomsen indices as the dependent variable, and the Thomsen indices obtained in the first and second step as explanatory variables:

Observed Thomsen index =
β_0 + β_1*(Thomsen index: Vote constant) + β_2*(Thomsen index: Class constant)

The standardized parameter estimates β_1 and β_2 then represent the relative effects of differences in class composition and of differences in voting behaviour on the differences in class voting between the countries. It is to be noted that due to the way we set up our analyses, these two effects together explain all variation in

Table 5.6. Observed and simulated levels of class voting (measured by Thomsen index) per period in sixteen countries, 1961-1990

	1961-1970			1971-1980			1981-1990		
	Observed	Simulated		Observed	Simulated		Observed	Simulated	
		Vote constant	Class constant		Vote constant	Class constant		Vote constant	Class constant
Australia	1.34	1.01	1.44	1.37	0.97	1.41	0.87	0.93	1.17
Austria	-	-	-	1.55	1.10	1.52	0.94	0.98	1.13
Belgium	-	-	-	1.30	-	-	-	-	-
Britain	1.66	0.93	1.79	1.39	0.94	1.63	1.28	0.95	1.47
Canada	-	-	-	-	-	-	0.84	1.04	0.14
Denmark	-	-	-	2.11	1.09	-	2.11	0.95	2.11
Finland	-	-	-	2.22	1.17	1.99	-	-	-
France	-	-	-	0.96	1.01	1.24	-	-	-
Germany	0.84	0.96	1.18	0.92	0.90	1.16	0.74	0.91	0.99
Ireland	-	-	-	-	-	-	1.18	1.15	0.88
Italy	0.73	0.82	1.19	0.85	0.95	1.12	0.58	0.91	0.71
Netherlands	1.04	0.94	1.33	0.99	0.92	1.24	0.78	0.90	1.07
Norway	1.85	1.10	1.77	1.69	1.06	1.74	1.08	0.98	1.05
Sweden	-	-	-	1.81	1.01	1.76	0.98	0.95	1.16
Switzerland	-	-	-	1.25	1.00	1.47	-	-	-
United States	0.83	1.00	0.97	0.56	0.95	0.69	0.43	0.95	0.41
Mean	1.18	0.97	1.38	1.36	1.01	1.41	0.98	0.97	0.93
Std. deviation	0.40	0.10	0.28	0.47	0.10	0.33	0.41	0.00	0.35

levels of class voting between the countries. Therefore, it holds that the variation in the observed Thomsen indices between the countries can for $(\beta_1/(\beta_1+\beta_2))*100$ per cent be explained by variation in class composition, and for $(\beta_2/(\beta_1+\beta_2))*100$ per cent by variation in voting behaviour of the sub-classes.

Analyses for the three periods demonstrate that in the period 1961-1970 a proportion of 0.315/(0.315+0.845), or 27 per cent of the variation in class voting was due to variation in class composition between the countries. For the period 1971-1980 this was 0.240/(0.240+0.800), or 23 per cent, and for the last period 0.438/(0.438+0.925), or 32 per cent.[6] Conversely, in the three subsequent periods about 73 per cent, 77 per cent and 68 per cent of the variation in class voting between the countries can be explained by variation in the voting behaviour of the EGP classes between these countries.

Thus, the conclusion is that of the total variation in levels of class voting between countries, when measured by the manual and nonmanual class distinction, on average about a quarter can be explained by variations in the composition of the manual and nonmanual classes between these countries. The remaining three-quarters of the variation in manual/nonmanual class voting between countries can be explained by differences between these countries in the voting behaviour of the sub-classes of the manual and nonmanual class. Thus, the claim by scholars of the third generation (Heath et al 1985; Hout et al. 1994), that the different levels of class voting found between countries, when measured by manual and nonmanual class distinction, to some extent are the result of differences in the class composition of the manual and nonmanual classes in these countries and not totally due to differences in the relationship between class and voting behaviour, seems to be correct.

Explaining changes over-time

We next investigated the extent to which changes in the composition of the manual and nonmanual classes are responsible for the observed decline in class voting within most countries, when employing the manual/nonmanual distinction. For this purpose we applied similar analyses as those used when investigating differences between countries. The contrast is that we now do not assume that voting behaviour and class distributions are constant over time and countries, but that voting behaviour and the EGP class distribution are constant over-time within countries. Doing so, we avoid confounding the effects of between-country and over-time variation in class composition. In fact, we followed the same idea as in Chapter 4, that years are nested within countries.

Thus, as a first step Thomsen indices of each year were calculated, while

assuming *constant voting behaviour over-time* (not over countries) for the seven EGP categories. In order not to be dependent upon incidental changes we chose the average voting behaviour for each class in each country as a baseline. The calculated Thomsen indices obtained are presented in column E of Table 5.5. As a second step, we calculated Thomsen indices under the assumptions of varying voting behaviour but *constant class distributions over-time*. The average voting behaviour within each country was chosen as a baseline. The results are reported in column F of Table 5.5.

If changes in the composition of the EGP classes are to a substantial extent responsible for changes in class voting within countries, we would expect the Thomsen indices obtained in the first step (column E) to be closer to the observed Thomsen indices, than the Thomsen indices obtained in the second step (column F). We find, however, that there is hardly any over-time variation in column E in Table 5.5 within countries, whereas we find much over-time variation in column F. This suggests that most of the over-time variation in observed levels of class voting is due to changes in the voting behaviour of the EGP classes, and only to a small extent, if at all, to changes in the composition of the manual and nonmanual classes.

Just like for the between-country differences, we can quantify the extent to which the observed over-time variation in levels of manual/nonmanual class voting can be explained by variation in the class composition and by variation in the voting behaviour of the EGP classes. We take for each country separately the observed Thomsen indices as the dependent variable, and the Thomsen indices obtained in the first and second step as explanatory variables.[7] We find in the nine countries where we have data from more than two points in time, that changes in the class composition to some extent explain changes in levels of manual/nonmanual class voting: In Australia the over-time variation in the composition of the manual and nonmanual classes explains 12 per cent of the over-time variation in the levels of class voting within that country. In Austria it explains 31 per cent of the variation in class voting, in Britain 17 per cent, in Denmark 52 per cent, and in Germany 18 per cent. Furthermore, the over-time variation in the class composition explains 41 per cent of the variation in class voting in Italy, 20 per cent of the variation in the Netherlands, 3 per cent in Norway, and 5 per cent in the United States. Thus, we can conclude that on average changes in levels of class voting within countries, when measured by the manual and nonmanual class distinction, can for about a fifth be explained by changes in the composition of the manual and nonmanual classes within these countries. The remaining four-fifths of the over-time variation in levels of manual/nonmanual class voting within countries is due to changes in the voting behaviour of the sub-classes of the manual and nonmanual class.

5.5 Conclusions

In the first and second generation of research on the relationship between class and voting behaviour, studies appeared that used the Alford index as a measure of the level of class voting in a country. This index examines the absolute differences in voting behaviour between the manual and the nonmanual class in a country at a certain point in time. Scholars from the third generation have raised two points of criticism on the use of this strategy. First, they argue that one should not focus on absolute differences in voting behaviour between classes, but on relative differences. In Chapter 3, we paid attention to this criticism and examined the relative levels of class voting, using the log-odds-ratio. We concluded that this criticism was right in itself, but that descriptions with both measures yielded about the same results. A second point of criticism on the traditional research strategy was on the use of a dichotomous class scheme. When applying the manual/nonmanual class distinction in studies of the first generation, substantial variations in the levels of class voting across countries and over-time within countries were found. Scholars from the third generation claimed that this variation might to some extent not be due to real variation in the strength of the relationship between class and voting behaviour, but due to variation in the composition of the manual and nonmanual classes.

In this chapter we tested the hypothesis embedded in this second criticism. We investigated the extent to which the variations in class voting can be explained by differences and changes in the composition of the manual and nonmanual classes. It was presumed that the manual and the nonmanual classes can be divided into sub-classes according to the so-called "EGP" class scheme.

The main finding in this chapter was that between-country and over-time variation in the levels of class voting can to some extent be explained by variation in the composition of the manual and nonmanual classes. In general, *around one quarter of the variation across democratic industrialized countries in levels of class voting, when measured by the manual/nonmanual class distinction, could be explained by differences between these countries in the composition of the manual and the nonmanual classes, when distinguishing between seven EGP classes.* Our analyses showed that in the period 1961-1970 about 27 per cent, in the period 1971-1980 about 23, and in the period 1981-1990 about 31 per cent of the differences in class voting between countries could be explained by differences in the composition of the manual and nonmanual classes between countries under investigation.

Furthermore, our analyses yielded the conclusion that on average around *a fifth of the over-time variation within democratic industrialized countries in levels of class voting, when measured by the manual/nonmanual class distinction, could be*

explained by over-time variations within these countries in the composition of the manual and the nonmanual classes, when distinguishing seven EGP classes. In Denmark and Italy we found the highest percentage of variance explained, i.e. more than 40 per cent. In Norway and the United States only about 5 per cent could be explained. These results then indicate that scholars of the third generation were right, when they claimed that not all variation detected when examining manual/nonmanual class voting, was due to variation in the strength of the relationship between class and voting behaviour.

However, our findings also imply that differences and changes in the voting behaviour of the EGP classes do appear to be the foremost causes of variations in class voting. Our results imply that in general a substantial part (i.e. more than three-quarters) of the variation in class voting is due to "real" changes in the strength of the relationship between class and voting behaviour. This then makes it of interest to address once more our descriptive question on the differences between countries and trends within countries in class voting, but now measured by the EGP class scheme, and therefore controlling for variation in the composition of the manual and nonmanual classes.

6 Description of EGP Class Voting

6.1 Introduction[1]

Traditionally, in studies on stratification and politics, substantial differences in the levels of class voting between Western industrialized countries have been found, when distinguishing between manual and nonmanual classes. The Scandinavian countries show the highest levels of class voting, and the United States and Canada the lowest. Furthermore, when using the manual and nonmanual class distinction, declines in the levels of class voting have been found in most of the Western industrialized countries in the postwar period. Indeed, in Chapter 3 of this study we confirmed the results of these traditional studies of the first generation of research on stratification and politics.

However, in studies of the third generation the manual/nonmanual class scheme has been criticized as too crude to be useful in descriptive studies on class voting. In these studies it has been argued that when a more detailed class scheme - like the EGP class scheme - is used, descriptive studies on levels of class voting might result in different conclusions. This argument has been given some merit by the results of the previous chapter. In that chapter we found that in general about a quarter of the between-country and about a fifth of the over-time variation in manual/nonmanual class voting was due to variation in the composition of the manual and the nonmanual classes. Thus about three-quarters of the between-country variation in manual/nonmanual class voting was due to "real" variation in the strength of the relationship between class and voting behaviour, and four-fifth of the over-time variation.

In this chapter we readdress our descriptive research questions on the between-country and over-time variation in levels of class voting, but now while employing a detailed class scheme and techniques of analyses that are typical for the third generation. We address the following question: *To what extent did the levels of class voting, when measured by EGP classes, differ across democratic industrialized countries in the postwar period?*, and: *To what extent was there a decline in the levels of class voting, when measured by EGP classes, in these countries over that period?*

The answers to these questions are of interest in themselves. However, we are - of course - also interested in the extent to which the variation in levels of EGP class voting differs from the variation in manual/nonmanual class voting found in Chapter 3. For example, it is of interest to examine whether the ranking of

countries with respect to their levels of class voting, when measured by EGP classes, is the same as the ranking when investigating the levels of manual/nonmanual class voting. In addition, it is of interest to examine whether the same countries show a decline in class voting. The results of Chapter 5 indicated that about four-fifths of the over-time variation in manual/nonmanual class voting was due to changes in the strength of the relationship between class and voting behaviour, but the analyses in that chapter did not show in which direction these changes were. Furthermore, in this chapter we test whether the speed of decline differs for manual/nonmanual and EGP class voting.

In addressing the formulated research questions, this chapter is one of a growing list of studies addressing such descriptive questions. Since the beginning of the third generation, scholars have been using detailed class schemes, focusing on relative levels of class voting, and applying appropriate techniques to investigate the relative levels of class voting. The present study distinguishes itself from earlier studies by its scope. So far studies in the third generation have predominantly focused on trends in class voting within a single country. For example, Evans et al. (1991) and Heath et al. (1995) analysed data for Britain. They found no trend, but only trendless fluctuation in the level of class voting. Hout et al. (1994) came to a similar conclusion for the United States when applying a detailed class scheme. Furthermore, Weakliem & Heath (1994b) found little evidence of a continuing decline of class voting in Britain, France, and the United States. The aim of this chapter is not only to examine the existence of trends in EGP class voting in single countries, but also to study differences in class voting across many countries, and to compare the speed of the trends in class voting that occurred within these countries.

To answer the questions posed in this chapter, we use the same data as in the previous chapter. These pertain to 75,783 male respondents aged eighteen years or older from 113 surveys held in sixteen countries and covering the period 1956-1990. For all years in each country for which data were available, cross-tabulations of the EGP classes versus voting behaviour were constructed. According to the EGP classification seven class categories were distinguished, i.e. service class, routine nonmanual class, petty bourgeoisie, farmers, skilled manual workers, unskilled manual workers, agricultural labourers. For voting behaviour the traditional categories left-wing and right-wing were distinguished. Since for some years in some countries several surveys were available, this resulted in 103 class voting tables that are analysed in the present chapter.

The chapter is structured as follows. Section 2 presents a description of the differences in voting behaviour between classes in the various countries during the postwar period, based on a visual inspection of tables. Section 3 discusses specific models that we apply to describe the levels of class voting, when using

the EGP class scheme. By using these models, Section 4 describes differences across countries and trends within countries in EGP class voting. Section 5 compares the levels and trends in EGP class voting with the levels and trends in manual/nonmanual class voting. In the last section, Section 6, the results are discussed.

6.2 Differences in voting behaviour between EGP classes

When using the manual/nonmanual class distinction in this study, the log-odds-ratio (which we called the Thomsen index) is used to measure differences in voting behaviour between the manual and nonmanual classes in a country. As suggested by, among others, Heath et al. (1985) and Hout et al. (1994), the log-odds-ratio can also be applied to assess differences in voting behaviour between classes, using a more detailed class scheme. When analysing these tables the advantages of log-odds-ratios become more clear. When investigating levels of class voting using EGP classes, the distribution of the classes and the voting behaviour are regularly far more skewed than 25:75. Thus, when applying EGP classes, the advantages of the log-odds-ratio over the Alford index as explained in Chapter 2 are clear.

In Table 6.1 we present log-odds-ratios representing the differences in voting behaviour between the EGP classes for sixteen countries and for four periods. To compute these log-odds-ratios we first calculated the mean percentage of left-wing voters per EGP class in each period based on our survey data, i.e. within each period we took the weighted mean of the percentages of the surveys in that period. Consequently, surveys with a small number of respondents were less heavily weighted than surveys with many respondents. This had the benefit that the results were not too much dependent on data from a single small survey. The calculated percentages of left-wing voters per class were already presented in the previous chapter, i.e. in Table 5.2. On the basis of these presented percentages, we computed the log-odds-ratios. These log-odds-ratios are listed in Table 6.1, where the classes are ordered from the generally most left-wing class, the unskilled manual workers, to the typically least left-wing class, the farmers. When calculating the log-odds-ratios, the unskilled manual class was chosen as the reference category. Consequently, the calculated log-odds-ratios represent the difference in voting behaviour between the unskilled manual class and the other classes.[2]

Let us first get some overall idea of the differences in voting behaviour between EGP classes. Therefore, we present in the bottom row of Table 6.1 log-odds-ratios that are based on all respondents in all countries and periods in our

Table 6.1. Difference in voting behaviour (in log-odds-ratios) between the unskilled manual class and the other EGP classes in sixteen countries, 1956-1990

		Unskilled manual (ref.)	Skilled manual	Agric. labourers	Routine nonmanual	Service class	Petty bourg.	Farmers
Australia	1961-70	0	0.04	0.34	0.89	1.37	0.97	2.27
	1971-80	0	-0.02	0.14	0.83	1.42	1.14	2.75
	1981-90	0	0.22	0.81	0.68	1.03	1.15	2.39
Austria	1971-80	0	-0.03	1.86	1.31	0.97	2.09	3.13
	1981-90	0	0.05	1.09	0.19	0.59	1.63	3.29
Belgium*	1971-80	0	-0.39	-	0.93	1.11	1.47	1.69
Britain	1961-70	0	-0.09	0.41	1.05	1.77	1.82	2.43
	1971-80	0	0.03	1.40	1.03	1.45	2.05	3.18
	1981-90	0	0.14	0.48	1.05	1.40	1.23	2.06
Canada	1981-90	0	-0.02	-0.38	0.10	0.38	1.07	-0.40
Denmark*	1971-80	0	-0.05	-	0.99	1.78	2.42	4.19
	1981-90	0	-0.41	-	0.89	2.37	3.63	3.30
Finland	1971-80	0	-0.13	0.23	0.87	1.72	1.78	3.28
France	1971-80	0	0.39	0.64	0.55	1.16	1.79	2.05
Germany	1961-70	0	0.07	0.44	0.42	0.70	1.39	3.93
	1971-80	0	-0.17	0.59	0.51	0.61	1.86	2.73
	1981-90	0	0.05	0.73	0.61	0.72	1.57	1.98

Table 6.1. (Continued)

		Unskilled manual (ref.)	Skilled manual	Agric. labourers	Routine nonmanual	Service class	Petty bourg.	Farmers
Ireland	1981-90	0	0.09	0.07	-0.20	0.94	2.24	2.30
Italy	1961-70	0	0.25	0.74	1.06	1.67	0.86	0.94
	1971-80	0	0.25	1.04	1.18	0.91	0.88	1.86
	1981-90	0	0.17	0.11	0.46	0.63	1.04	1.01
Netherlands	1961-70	0	0.25	0.61	0.78	1.20	1.33	2.71
	1971-80	0	0.01	1.04	0.69	1.00	1.65	2.82
	1981-90	0	0.15	0.62	0.67	0.87	1.20	2.04
Norway	1961-70	0	-0.07	1.31	0.71	2.14	1.19	2.40
	1971-80	0	0.23	0.04	0.85	1.68	1.28	2.75
	1981-90	0	-0.09	0.22	0.65	1.11	0.62	1.25
Sweden	1971-80	0	-0.52	1.07	0.92	1.37	1.93	3.56
	1981-90	0	-0.13	1.30	0.81	0.80	1.39	2.48
Switzerland	1971-80	0	0.24	-	0.68	1.44	1.57	2.69
United States	1956-60	0	-0.12	-0.75	0.26	0.63	-0.01	0.21
	1961-70	0	0.32	0.43	0.31	0.50	0.53	0.62
	1971-80	0	0.26	0.08	0.50	0.77	0.37	0.97
	1981-90	0	0.30	0.87	0.40	0.69	0.77	0.22
All data	1945-90	0	0.06	0.56	0.66	1.00	1.13	1.77

Note: Not all figures for Belgium and Denmark could be given, because in these countries agricultural labourers are classified as unskilled manual workers.

dataset. In this way these log-odds-ratios represent the mean differences in voting behaviour between the EGP classes in all countries and years under investigation. The figures in this bottom row show that on average the difference in voting behaviour between the two most left-wing classes - the unskilled and the skilled manual classes - can be represented by a log-odds-ratio of 0.06. Thus, in general these classes have about the same voting behaviour. The difference in voting behaviour between the unskilled manual class and the service class is represented by a log-odds-ratio of 1.00. Furthermore, the log-odds-ratio for the difference between the two classes with the most different voting behaviour - the unskilled manual class and the farmers - has the value 1.77. The log-odds-ratio for the difference between the service class and the farmers can be calculated by subtracting from the log-odds-ratio for the difference between the unskilled manual class and the farmers (1.77), the log-odds-ratio for the difference between the unskilled manual class and the service class (1.00). Thus, this log-odds-ratio has the value 0.77.

In the other rows of Table 6.1, the log-odds-ratios represent the differences in the voting behaviour of the unskilled manual class and the other EGP classes, separately for each country and period under investigation. These figures reveal that the differences between the classes vary substantially from country to country. For example, in Norway during the period 1971-80 the difference between the most left-wing class and the most right-wing class, that is between the unskilled manual workers and the farmers, is 2.75, while in the United States for the same period the difference between these classes is only 0.97. Differences between the other classes are also larger in Norway than in the United States.

The figures in Table 6.1 also give a global indication that a decline occurred in class voting within some countries. This can be made clear by examining the differences in voting behaviour between the unskilled manual class and the service class. In many countries, i.e. in Australia, Britain, Italy, Netherlands, Norway, and Sweden, the log-odds-ratios for the more recent periods are smaller than those for the earlier periods.

However, the log-odds-ratios in Table 6.1 are insufficient to conclude that a general decrease in class voting has occurred within these countries. Examining so many log-odds-ratios to investigate the extent to which the overall levels of class voting differ between countries and over-time, is inconvenient. As already discussed in Chapter 2, Hout et al. (1994: 20), therefore, have suggested using the standard deviation of the log-odds-ratios measuring the difference in voting behaviour between the classes, as a measure of the overall level of class voting in a country in a certain year. They labelled this measure the kappa index. The higher the value of the kappa index, the more the sub-classes differ in their voting behaviour. Or in other words, the higher the value of the kappa index, the higher

Table 6.2. Levels of class voting (measured by kappa index) in sixteen countries, 1961-1990 (individual dataset)

	1961-1970	1971-1980	1981-1990
Australia	0.81	1.00	0.78
Austria	-	1.14	1.18
Belgium	-	0.83	-
Britain	0.99	1.12	0.74
Canada	-	-	0.50
Denmark	-	1.62	1.71
Finland	-	1.23	-
France	-	0.76	-
Germany	1.37	1.05	0.73
Ireland	-	-	1.08
Italy	0.55	0.61	0.42
Netherlands	0.90	0.98	0.68
Norway	0.96	1.01	0.52
Sweden	-	1.33	0.89
Switzerland	-	1.00	-
United States	0.20	0.35	0.32
Mean	0.83	1.00	0.80
Std. deviation	0.34	0.30	0.37

the level of class voting in a country. The advantage of this kappa index is that it reports a single standardized score that reflects the level of class voting for a particular country in a particular year or period, and therefore provides a uniform metric for making cross-national and over-time inferences.

However, a disadvantage of the kappa index is that, when calculating the index on a set of log-odds-ratios, the separate log-odds-ratios are given equal weights. When analysing small datasets with different numbers of respondents in the distinguished classes, the separate log-odds-ratios are computed on different numbers of respondents. This then yields estimates of the log-odds-ratios that differ in reliability. For example, the log-odds-ratio for the difference in voting behaviour between the agricultural workers - a small class - and the unskilled manual class, will be less reliable than the log-odds-ratio for the difference in voting behaviour between the service class - a large class - and the unskilled manual class. The fact that log-odds-ratios which differ in reliability are given equal weights might bias the results of descriptive analyses when applying the kappa index. We deal with this drawback later, but since we use the kappa index in later chapters and our dataset contains many respondents in almost all classes, we first examine the levels of EGP class voting with the kappa index. We calculated kappa indices for each country and period on the basis of the present-

Table 6.3. Linear trends in the levels of class voting (measured by kappa index) in thirteen countries (individual dataset)

	Intercept (class voting in 1980)		Trend (change / 10 years)		N. of years	Range
	parameter	s.e.	parameter	s.e.		
Australia	0.90*	0.06	-0.04	0.07	9	1965-90
Austria	1.22*	0.16	0.24	0.22	4	1974-89
Belgium	-	-	-	-	1	1975
Britain	0.94*	0.50	-0.15*	0.06	12	1964-90
Canada	-	-	-	-	1	1984
Denmark	1.40*	0.21	-0.34	0.38	6	1971-81
Finland	0.77	-	-0.77	-	2	1972-75
France	-	-	-	-	1	1978
Germany	1.03*	0.05	-0.41*	0.08	13	1969-90
Ireland	1.54	-	-0.62	-	2	1989-90
Italy	0.50*	0.06	-0.08	0.08	3	1968-85
Netherlands	0.92*	0.04	-0.11	0.07	14	1970-90
Norway	0.81*	0.06	-0.25*	0.07	7	1965-90
Sweden	1.13	-	-0.24	-	2	1972-90
Switzerland	0.71	-	-0.15	-	2	1972-76
United States	0.52*	0.05	-0.04	0.04	24	1956-90

Notes: * $p < 0.05$;
The variable Year was centred around 1980.

ed log-odds-ratios in Table 6.1, and these are reported in Table 6.2. In Table 6.2 it is shown, for example, that the kappa index for Australia in the period 1961-1970, i.e. the standard deviation over the seven figures given in the first row of Table 6.1, has the value 0.81. When examining all presented kappa indices in Table 6.2 it is clear that in each of the distinguished periods the kappa indices differ considerably between the countries. In fact, the same picture comes up as in Chapter 3, where we described the level of manual/nonmanual class voting with the Thomsen index. Canada and the United States have the lowest levels of class voting, while Britain and the Scandinavian countries have the highest levels of class voting.

To investigate whether the level of EGP class voting has declined over-time like the levels of manual/nonmanual class voting in these countries, we present Table 6.3. In that table summary measures are reported for the decline in class voting in each country, measured by the kappa index. For every country a linear regression was computed, in which the kappa index was defined as the dependent variable, and year of survey as the independent variable. Any decline in the kappa indices

would be evidenced by negative trend-parameters. The more the decline in the kappa indices, the stronger the decline in class voting in that country. The figures in Table 6.3 show negative trend-parameters for all countries under investigation, except Austria. Thus, we can carefully conclude that - similar to the developments in levels of manual/nonmanual class voting - declines in the levels of EGP class voting in most countries have occurred. The trend-parameters differ significantly from zero in only Germany, Britain, and Norway. The fact that some trend-parameters are not statistically significant different from zero, might be due to the fact that for the pertinent countries only a limited number of datasets were available. However, for the United States and the Netherlands, i.e. countries where we have data from more than 10 years, we can be reasonably sure that no systematic decline has occurred.

To summarize, on the basis of these results we can conclude that substantial differences in the levels of EGP class voting, when measured by the kappa index, existed in the post war period between the Western industrialized countries. Furthermore, we can also conclude that notable declines in the levels of EGP class voting, when measured by the kappa index, occurred in the postwar period in most of these countries.

6.3 Modelling the description of EGP class voting

When using the kappa index as a measure of the level of EGP class voting in a country - as already discussed - we have to realize that the kappa index is calculated on sets of log-odds-ratios that represent differences in voting behaviour between two particular classes. When calculating these log-odds-ratios on the basis of a dataset these measures have sampling errors. These sampling errors depend, of course, on the number of respondents in the two particular classes. Thus, calculating log-odds-ratios in countries where some classes are small, and where we have a dataset with only a small number of respondents, yields unreliable estimates of the log-odds-ratios. Consequentially, this also yields unreliable estimates of the kappa index, and possibly biased descriptions of between-country and over-time differences in levels of EGP class voting.

Therefore, to describe the differences in levels of class voting between countries and the changes in class voting within countries, we need models that avoid this problem. Such models should make it possible to examine the relationship between class and voting behaviour net of changes in the sizes of the classes and the popularity of the parties. Furthermore, these models should assume that differences in voting behaviour between classes can be measured by log-odds-ratios, and that these log-odds-ratios are simultaneously estimated. Or in other

words: "classes can be ranked according to an unchanging order that corresponds to the left-to-right ranking of parties even if the strength of association between class and voting might change from election to election and from country to country" (Hout et al. 1994: 29). Models that take these considerations into account have been developed by Erikson & Goldthorpe (1992) and independently by Xie (1992), and are called uniform difference models. The name refers to the fact that in these models it is assumed that differences between all the classes in their voting behaviour, measured by log-odds-ratios, vary uniformly by a constant proportion across countries and years.[3] A benefit of these uniform difference models is that they provide a single measure of the strength of the association between class and voting for each country and year.

The general *uniform difference model*, can be represented by the following equation:

$$\log((\pi^*\text{Left})/(1 - \pi^*\text{Left})) =$$
$$\beta_{0jk} + \delta_{jk} * [\ \beta_1*(\text{Skilled manual class}) + \beta_2*(\text{Agric. labourers}) +$$
$$\beta_3*(\text{Routine nonmanual class}) + \beta_4*(\text{Service class}) +$$
$$\beta_5*(\text{Petty Bourgeoisie}) + \beta_6*(\text{Farmer})\ ]$$

where the variable for the voting behaviour of the respondents, *Left*, is coded (1) when respondents vote for a left-wing party and (0) when they vote for a right-wing party. Furthermore, in this equation the seven EGP classes are represented by six dummy variables. Again the unskilled manual class is defined as the reference category. Consequently, the β_1- to β_6-parameters represent the average differences in voting behaviour, measured by log-odds-ratios, between the unskilled manual class and the other EGP classes.

According to the equation, the intercept, β_{0jk} represents the log-odds for unskilled manual workers of voting for a left-wing rather than a right-wing party. This intercept is allowed to vary over years (j) and countries (k) in order to control for the variations in the general popularity of left-wing parties in the various countries and years. This parameter, however, is of limited interest because our concern is with class differences in voting behaviour and not with the absolute popularity of left-wing and right-wing parties.

Our main interest lies in the δ_{jk}-parameters of the model. Under the fitted model, the δ_{jk}-parameters give a measure of the overall differences and changes in the strength of the relationship between class and voting behaviour. They therefore show in which direction and to what extent class differences in voting behaviour uniformly (i.e. by a constant proportion) vary across years (j) and countries (k). Thus, these δ_{jk}-parameters can be regarded as the "overall" level of class voting in a specific year in a specific country.

6.4 Results

Model selection

To test statistically whether the overall levels of class voting differed significantly across countries and whether significant trends had occurred within these countries, some variations of the *Uniform difference models* were applied.[4] Each model gives a different representation of the country-differences and trends. To select the model that summarizes our data best, we compared the fit of one model with the fit of a less general one nested within the first. The traditional Likelihood-ratio test and the BIC (Bayesian Information Coefficient) were used to detect whether the fits of models differed significantly. When comparing several models, the model with the most negative BIC is the one to be preferred. Furthermore, the BIC shows whether a model describes the data reasonably. In that case the BIC takes a negative value.

We used both the Likelihood-ratio test and the BIC statistic since both have advantages over the other measure. On the one hand, the BIC statistic has the advantage over the Likelihood-ratio test that it takes into account the number of cases in the analyses. To select between two models, when analysing a large dataset (as we do in this chapter) and using the Likelihood-ratio, differences between models can too easily turn out to be statistically significant (Raftery 1986). On the other hand, the BIC statistic has the disadvantage over the Likelihood-ratio test that it is biased in favour of parsimony as against fit (Erikson & Goldthorpe 1992: 101). The addition of a parameter to a model resulting in a substantially refinement in the representation of the data might not yield a smaller BIC, but might yield a significant improvement in the Likelihood-ratio.

In addition to the Likelihood-ratio and the BIC we used the dissimilarity index to compare the fit of the models. This index shows the percentage of all cases in the table analysed that are misclassified, that is the percentage allocated to the wrong cell. The fit statistics of all models are presented in Table 6.4.

We wanted to investigate whether differences existed in levels of EGP class voting between countries, and whether trends in these levels had occurred within these countries. To do this, we fitted models that represent various possibilities.

We first fitted the *Independence model*, which assumes that there is no association between class and voting behaviour in all countries and years (i.e. all δ_{jk}-parameters are assumed to be zero). The BIC for this model is only slightly negative, and the dissimilarity index is twelve. Thus, this model gives a poor representation of our data. This model serves as a baseline, a model upon which to asses the degree of improvement provided by more specific models. Therefore,

Table 6.4. Results of fitting uniform difference models to class voting data for sixteen countries

		L^2	df	rL^2	BIC	DI
A.	Independence model ($\delta_{jk} = 0$)	6567.9	612	0	-308.3	12.0
B.	No differences model ($\delta_{jk} = 1$)	1648.1	606	74.9	-5160.7	5.3
C.	Country differences model ($\delta_{jk} = \delta_{0k}$)	842.7	591	87.2	-5797.6	4.3
D.	Country differences and general linear trend ($\delta_{jk} = \delta_{0k} + \delta_1 *$ Year)	793.0	590	87.9	-5836.0	4.1
E.	Country differences and country specific linear trends ($\delta_{jk} = \delta_{0k} + \delta_{1k} *$ Year)	728.3	577	88.9	-5754.7	4.0
F.	Country differences and country specific nonlinear trends ($\delta_{jk} = \delta_{jk}$)	622.1	504	90.5	-5040.7	3.5

Notes: N. of cases = 75,783; df: Degrees of freedom; L^2: Likelihood-ratio; rL^2: Percentage reduction in the L^2 compared to the independence model; BIC: Bayesian Information Coefficient; BIC = L^2-df_{used}*log(N); DI: Dissimilarity index, showing the percentage of all cases in the tables analysed that are misclassified - that is, allocated to the wrong cell - by a particular model.

for the other models in Table 6.4 the percentage reduction in the Likelihood-ratio (L^2) compared to the *Independence model* is given.

With the second model we applied, we wanted to investigate whether a relationship existed between class and voting behaviour. Therefore, the *No differences model* was fitted. This model presumes that in general there is an association between class and vote. In addition, it assumes that the strength of this association, i.e. the level of class voting, is the same in all countries and years. To do this, in the model all δ_{jk}-parameters are assumed to have the value one. This model provides, both according to the Likelihood-ratio (ΔL^2 = 4919.8, df= 6) and the BIC (ΔBIC = -4852.4), a much better representation of the data than does the *Independence model*. The Likelihood-ratio compared to that model is reduced by 74.9 per cent. This, of course, is not surprising when we consider the findings of the earlier chapters of this study, and the findings of Section 5.2. Furthermore, the large negative BIC indicates that the *No difference model* gives a good representation of the data. Consequently, we have to reject the assumption that there is no relationship between social class and voting behaviour in the countries under investigation.

Next, we tested whether levels of class voting differed between countries. To do

this, we fitted the *Country differences model* that, like the *No difference model*, assumes that the strength of the relationship between class and vote is constant over-time, but that levels of class voting vary across countries. Therefore the δ_{jk}-parameter is allowed to have a different value for each country (i.e. $\delta_{jk} = \delta_{0k}$). The figures in Table 6.4 reveal that according to both the Likelihood-ratio test (ΔL^2 = 805.4, df = 15) and the BIC (ΔBIC = -636.9) this model provides a significantly better fit than the *No difference model*. Thus, we have to reject the assumption that levels of class voting are the same in all countries under investigation, and can accept that countries differ in their levels of class voting.

Next, we tested for the occurrence of trends in levels of class voting within countries. First, we examined whether we could detect a general linear trend in all countries in their levels of class voting. We fitted the *Country differences and general linear trend model*, which assumes that levels of class voting vary across countries, but also that these levels vary in a linear way over-time. In this model, we assume the same trend in class voting for all countries. The δ_{jk}-parameter is assumed to be linearly dependent on the year variable, according to the equation: $\delta_{jk} = \delta_{0k} + \delta_1$*Year. Because of interpretation, the variable year was linearly transformed by subtracting 1980 from its original value. The estimates of the country-parameters (δ_{0k}) therefore represent the levels of class voting in the various countries in the year 1980. According to both the Likelihood-ratio (ΔL^2= 49.7, df=1) and the BIC (ΔBIC = -38.4) this model represents the data significantly better than the preceding models. Therefore, on the basis of the fit statistics and the estimated general trend-parameter (i.e. -0.014, s.e. = 0.002) we provisionally conclude that in general a decline in levels of class voting has occurred in the countries featured in this chapter.

Our next models tested whether trends differed among countries, and whether these trends were non-linear. For this reason we estimated first the parameters of the *Country differences and country specific trends model.* This model assumes that levels of class voting vary across countries, but also that these vary in a linear way over-time (i.e. $\delta_{jk} = \delta_{0k} + \delta_{1k}$*Year). Furthermore, we fitted the *Country differences and non-linear trends model.* This model assumes that differences in class voting exist between countries, and that in each country a different non-linear trend has occurred in levels of class voting. To represent these non-linear trends for each country/year combination a separate δ_{jk}-parameter was estimated (i.e. $\delta_{jk} = \delta_{jk}$). Compared to the *Country differences and general linear trend model*, both these models show a significant improvement in fit according to the Likelihood-ratio test (ΔL^2 = 64.7, df = 13, and ΔL^2 = 170.9, df = 86 respectively). However, the BIC's have less negative values than the *Country differences and general linear trend model* (ΔBIC = 81.3 and 795.3 respectively),

and thus do not suggest a substantial improvement in fit. Given our large sample size we tend to prefer the more parsimonious *Country difference and general linear trend model.* However, we note that although according to the BIC this last mentioned model has a better fit, this does not necessarily imply that there exists no trend differences at all among countries or that all trends are linear. For example, the model representing country specific linear trends uses for each of the thirteen countries where we have data of more than a single year, an extra trend-parameter compared to model E. Therefore, this model uses thirteen degrees of freedom more than the *Country difference and general linear trend model.* Furthermore, we already mentioned that the BIC statistic is biased in favour of parsimony as against fit. Hence, it is very possible that the BIC comparison does not detect that in some countries substantially different trends occurred, when in most countries indeed comparable trends occurred.[5] Furthermore, in the model to represent non-linear trends within the countries, for each country many extra parameters are necessary, compared to the linear trend models.

Concluding, of all the fitted models the *Country difference and general linear trend model* gives, when using the Likelihood-ratio and the BIC simultaneously, the best representation of our data. Thus, it is worthwhile to investigate the parameters of this most parsimonious fitting model. However, because our interest is not just to give the most parsimonious representation of the data, but also to give a fair description of the processes of dealignment in all countries and periods, in the next sections we also pay attention to the parameters of the *Country differences and Country specific linear trend model* and the *Country difference and non-linear trend model.*

Before we interpreted the parameters of these models, we first checked whether the *Country differences and general linear trend model* satisfactorily fits with the data of tables of the individual countries and specific years. It might of course be that our preferred model in general gives a good representation of our data, but that for some countries or years this model does not provide a sufficient representation of the data. Analyses reveal that for 88 out of the 103 tables the model fits according to the classic criterion of statistical inference (i.e. L^2 / df). For the 15 tables for which we do not obtain a good fit on this criterion we can see that they are in general those tables with a relative large number of cases. It is therefore not surprising that the BIC statistic results in a negative coefficient for 101 tables. Only the 1970 United States data and the 1979 Australian data yield positive BICs. Hence the model appears to provide an adequate summary of the class voting pattern in each country and each year. Therefore, we are confident in interpreting the parameters of that model.

Interpretation of parameter estimates

The parameter estimates of the preferred model, i.e. the *Country differences and general linear trend model*, are presented in Table 6.5.[6] In the upper part of this table we present the estimates of the β_1- to β_6-parameters for the model representing the general pattern of association between the EGP classes and their voting behaviour. The separate parameters represent the differences in voting behaviour between the unskilled manual class and the other EGP classes. According to the estimates of the β-parameters, the difference between the unskilled manual class and the skilled manual class is 0.07, while between the unskilled manual class and the farmers it is 1.88. The pattern of class voting obtained from the estimated β-parameters is - as could be expected - almost identical to that found in the last row of Table 6.1 where we calculated log-odds-ratios on class voting tables based on our total dataset.

The levels of class voting in the countries are represented by the country-parameters, i.e. the δ_{0k}-parameters. These parameters are presented in the bottom part of Table 6.5. Because in our model the variable *Year* was linearly transformed by subtracting 1980 from its original value, the estimates of the country-parameters represent the differences in the levels of class voting between countries in 1980. The country-parameters indicate that levels of class voting differed substantively from country to country in 1980. Canada and the United States had the lowest levels of class voting. Denmark had the highest level of class voting, followed by Finland, Sweden and Britain. The other countries are between these two groups. The interpretation of the parameters is that for example in Norway all log-odds-ratios are 1.205 times that in the general pattern. Hence, in that country in 1980 the log-odds-ratio indicating the differences in voting behaviour between the unskilled manual workers and the service class yields 1.22 * 1.02 = 1.24. The parameters for the United States imply that all log-odds-ratios in the United States are 0.35 times smaller than in the general pattern. The parameters also allow to compare countries with each other. For example, the parameters indicate that in Norway all log-odds-ratios are 1.22/0.35, or 3.5 times, larger than in the United States.

The estimated trend-parameter (δ_1) of the *Country difference and general trend model*, represents the general linear trend in levels of class voting within all countries. This parameter takes the negative value -0.14 (s.e. 0.02), which implies a decline in the association between class and vote. More particularly, all the log-odds-ratios representing the difference in voting behaviour between the EGP classes, i.e. the β_1- to β_6-parameters, decrease 14 per cent points per decade. This has serious implications for the levels of class voting. For example, it means that in Norway the log-odds-ratio representing the difference in voting behaviour

Table 6.5. Parameter estimates of the Country differences and general linear trend model

	General pattern	
Unskilled manual class	-	-
Skilled manual class	β_1	0.07
Agricultural labourers	β_2	0.58
Routine nonmanual class	β_3	0.66
Service class	β_4	1.02
Petty Bourgeoisie	β_5	1.21
Farmers	β_6	1.88

	Intercept (Class voting in 1980)		Trend (change / 10 years)	
	parameter (δ_{0k})	s.e.	parameter (δ_1)	s.e.
All countries	-	-	-0.14*	0.02
Australia	1.16*	0.13	-	-
Austria	1.35*	0.17	-	-
Belgium	1.28*	0.26	-	-
Britain	1.43*	0.13	-	-
Canada	0.01*	0.18	-	-
Denmark	1.75*	0.15	-	-
Finland	1.71*	0.20	-	-
France	0.97*	0.15	-	-
Germany	0.97*	0.13	-	-
Ireland	1.25*	0.23	-	-
Italy	0.59*	0.14	-	-
Netherlands	1.04*	0.13	-	-
Norway	1.22*	0.14	-	-
Sweden	1.53*	0.22	-	-
Switzerland	1.30*	0.19	-	-
United States	0.35*	0.13	-	-

Notes: * $p < 0.05$
The variable Year was centred around 1980.

between the unskilled manual workers and the service class, that has the value 1.24 in 1980, will be in the year 2000: 1.24 - (2*0.14*1.24) = 0.92.

As mentioned earlier, we do not only pay attention to the parameters of the *Country difference and general linear trend model*, but also to the parameters of two other models. The trend-parameters of the *Country difference and country*

Table 6.6. Parameter estimates of the Country differences and country specific linear trends model

		General pattern
Unskilled manual class	-	-
Skilled manual class	β_1	0.07
Agricultural labourers	β_2	0.58
Routine nonmanual class	β_3	0.66
Service class	β_4	1.02
Petty Bourgeoisie	β_5	1.21
Farmers	β_6	1.88

	Intercept (class voting in 1980)		Trend (change / 10 years)	
	Parameter (δ_{0k})	s.e.	parameter (δ_{1k})	s.e.
Australia	1.15*	0.13	-0.16*	0.05
Austria	1.37*	0.17	-0.22	0.15
Belgium	1.35*	0.26	-	-
Britain	1.45*	0.13	-0.25*	0.05
Canada	-0.00	0.18	-	-
Denmark	1.64*	0.18	-0.40	0.24
Finland	0.80	0.67	-1.59	1.05
France	0.96*	0.16	-	-
Germany	0.97*	0.13	-0.19*	0.07
Ireland	4.68	3.50	-3.77	3.69
Italy	0.63*	0.14	-0.02	0.08
Netherlands	1.04*	0.13	-0.21*	0.06
Norway	1.21*	0.14	-0.41*	0.06
Sweden	1.50*	0.22	-0.45*	0.20
Switzerland	1.37	0.21	0.04	0.26
United States	0.42*	0.13	0.01	0.03

Notes: * $p < 0.05$
The variable Year was centred around 1980.

specific linear trends model make it possible to check whether or not trends differed from country to country. These are reported in Table 6.6. The country specific trend-parameters, the δ_{1k}-parameters, represent the linear trends in class voting within the countries. Table 6.6 shows that in eleven out of the thirteen countries the country specific trend-parameter has a negative value.

Table 6.7. Estimated country/year parameters (δ_{jk}) of Country differences and country specific nonlinear trends model

Country	Year	Parameter	s.e.	Country	Year	Parameter	s.e.
Australia	1965	1.328*	0.168	Italy	1968	0.612*	0.171
	1967	1.140*	0.183		1975	0.804*	0.196
	1973	1.543*	0.156		1985	0.583*	0.163
	1979	1.160*	0.194				
	1984	1.001*	0.172	Netherlands	1970	1.152*	0.207
	1985	0.807*	0.207		1971	1.284*	0.174
	1986	0.981*	0.226		1972	0.950*	0.191
	1987	1.141*	0.166		1974	1.153*	0.247
	1990	0.983*	0.187		1976	0.948*	0.251
					1977	1.364*	0.164
Austria	1974	1.512*	0.212		1979	1.252*	0.285
	1985	1.381*	0.309		1981	0.953*	0.222
	1988	1.036*	0.268		1982	0.933*	0.226
	1989	1.247*	0.234		1985	1.008*	0.186
					1986	0.842*	0.167
Belgium	1975	1.367*	0.264		1987	0.809*	0.268
					1989	0.962*	0.266
Britain	1964	1.914*	0.231		1990	0.765*	0.204
	1966	1.818*	0.219				
	1970	1.499*	0.215	Norway	1965	1.540*	0.186
	1974	1.610*	0.166		1972	1.803*	0.256
	1979	1.445*	0.215		1977	1.262*	0.191
	1983	1.549*	0.181		1981	1.025*	0.248
	1985	1.574*	0.223		1985	1.384*	0.201
	1986	1.261*	0.217		1989	0.713*	0.164
	1987	1.392*	0.167		1990	0.750*	0.220
	1988	1.232*	0.183				
	1989	1.080*	0.181	Sweden	1972	1.873*	0.260
	1990	0.963*	0.233		1990	1.054*	0.310
Canada	1984	-0.003	0.180	Switzerland	1972	1.279*	0.242
					1976	1.509*	0.286
Denmark	1971	2.179*	0.252				
	1972	2.415*	0.271	United States	1956	0.110	0.174
	1975	2.113*	0.252		1958	0.371*	0.193
	1977	2.209*	0.245		1960	0.438*	0.207
	1979	1.643*	0.210		1964	0.740*	0.193
	1981	2.469*	0.336		1966	0.670*	0.224
					1968	0.476*	0.202
Finland	1972	2.097*	0.282		1970	-0.258	0.188
	1975	1.612*	0.233		1972	0.713*	0.197
					1973	0.481*	0.205
France	1978	0.997*	0.153		1974	0.537*	0.208
					1975	0.677*	0.206
Germany	1969	1.028*	0.195		1976	0.275	0.193
	1975	1.270*	0.197		1977	0.768*	0.195
	1976	1.080*	0.201		1978	0.499*	0.204
	1977	1.121*	0.208		1980	0.462*	0.200
	1978	1.096*	0.177		1982	0.710*	0.196
	1979	0.860*	0.174		1983	0.562*	0.197
	1980	0.945*	0.149		1984	0.560*	0.213
	1982	0.893*	0.202		1985	0.260	0.203
	1984	1.177*	0.198		1986	0.493*	0.212
	1986	0.767*	0.193		1987	0.396*	0.193
	1987	0.584*	0.271		1988	0.063	0.216
	1988	0.965*	0.206		1989	-0.212	0.205
	1990	0.679*	0.187		1990	0.176	0.217
Ireland	1989	1.295*	0.284				
	1990	0.912*	0.302				

Note: * $p < 0.05$.

Switserland and the United States have positive trend-parameters, but the standard errors of these are so large that no definite conclusions of an increase in class voting can be drawn. Of the negative trend-parameters six are statistically significant, i.e. for Australia, Britain, Germany, the Netherlands, Norway and Sweden. The strongest decline (ignoring Ireland where our two years of survey are too close to interpret trends) is found in Finland, Norway and Denmark. Obviously, for those countries for which we have many datasets over a longer period of time we have a higher chance of finding a significant trend.

The country-parameters of this model are similar to those of the *Country differences and general linear trend model*, and indicate that levels of class voting differed substantially from country to country in 1980. Canada and the United States had class voting the lowest level, while Denmark had the highest level of class voting, followed by Norway, Sweden and Britain. For Finland and Ireland we find an extremely high and an extremely low estimate of the country-parameter respectively. This is due to the fact that for these two countries we only had two datasets in a short period and that levels of class voting in these datasets/years differed substantially.[7]

The parameters of the *Country differences and non-linear trend model* are important when examining whether non-linear trends have occurred in some specific countries. For example, some researchers have shown that the trend in Britain has been non-linear, since it goes down until 1970 and from 1970 onward does not show any particular trend at all (Heath et al. 1985; Goldthorpe 1994; Heath et al. 1995). The country and year specific δ_{jk}-parameters of the *Country differences and country specific non-linear trend model*, that give the levels of class voting for all countries and years, are reported in Table 6.7. We find that in all countries, except the United States and Switzerland where an increase in class voting is found, in general the decline in the level of class voting has been fairly monotonic. Furthermore, in all countries where we have data from more than two years, we find that around this monotonic trend fluctuations are visible. However, on the basis of the trend-parameters of the *Country differences and country specific linear trend model*, we claim that in all countries - except the United States and Switzerland - these fluctuations have to be regarded as part of an overall declining trend, and not as trendless fluctuations. Britain is no exception to this observation.

6.5. Comparing manual/nonmanual class voting with EGP class voting

Traditionally, scholars of the first generation of research into stratification and politics studied class voting using the manual and nonmanual class dichotomy. In

Table 6.8. Comparison of levels of class voting in 1980 according to Thomsen indices and delta indices

	Country dataset		Individual dataset			
	Thomsen index (Table 3.3)		Thomsen index (Table 3.4)		delta index (Table 6.6)	
	Level	Rank	Level	Rank	Level	Rank
Australia	0.93	8	1.07	8	1.15	9
Austria	0.96	7	1.29	6	1.37	5
Belgium	0.86	9	-	-	1.35	7
Britain	1.06	5	1.39	4	1.45	4
Canada	0.28	20	-	-	-0.00	16
Denmark	1.15	3	1.95	2	1.64	2
Finland	1.57	11	-0.06	13	0.80	13
France	0.60	6	-	-	0.96	12
Germany	0.64	14	0.84	10	0.97	11
Greece	0.40	18	-	-	-	-
Ireland	0.76	12	2.86	1	4.68	1
Italy	0.64	15	0.68	11	0.63	14
Luxembourg	0.99	6	-	-	-	-
Netherlands	0.77	11	0.89	9	1.04	10
Norway	1.09	4	1.36	5	1.21	8
Portugal	0.43	17	-	-	-	-
Spain	0.74	13	-	-	-	-
Sweden	1.48	2	1.44	3	1.50	3
Switzerland	0.80	10	1.16	7	1.37	6
United States	0.37	19	0.47	12	0.42	15

Chapter 3 we followed this tradition and examined the levels of manual/nonmanual class voting in twenty countries in the postwar period. We showed that substantial differences between countries existed and that declining trends within these countries had occurred. However, scholars of the third generation claimed that variation in manual/nonmanual class voting might not just reflect real variation in the strength of the relationship between class and voting behaviour, but might also be due to variation in the composition of the manual and nonmanual classes. We tested this claim in Chapter 5, and concluded that variation in the composition of the manual and nonmanual classes to some extent can be held responsible for variation in levels of manual/nonmanual class voting. Therefore, it became of interest to investigate whether variation between countries and periods in class voting also could be found when using a detailed class scheme. We carried out such descriptive analyses in the present chapter, and established that also when using the EGP class scheme, substantial variation

between countries and declining trends within many countries could be identified. This implies that the third generation claim that the decline in class voting in some countries can only be identified when using the manual/nonmanual class distinction, and not using a detailed class scheme, has to be mitigated.

However, it might be that the speed of the decline in class voting in a country is different, depending on whether the focus is on EGP class voting or on manual/nonmanual class voting. In addition, it might be that the ranking of countries with respect to both types of class voting differs. Therefore, we directly compare the results of the descriptions of manual/nonmanual class voting with the results of the descriptions of EGP class voting.We start by comparing the differences between countries for the EGP class voting and for the manual/nonmanual class voting. Measures of the differences between countries in EGP class voting are obtained from the *Country difference and country specific linear trend model.* We presented these parameters in Table 6.6. As discussed above, these country-parameters indicate the level of EGP class voting in the year 1980. Measures of the observed country differences in manual/nonmanual class voting in the year 1980 were given in Chapter 3 in Table 3.3 and Table 3.4. We brought together these measures from the earlier tables, and listed them in Table 6.8. According to the delta indices for the levels of EGP class voting, the ranking of the countries (given in the last column of Table 6.8) is as follows (ignoring the strange results in Ireland and Finland): Denmark, Sweden, and Britain are the three countries with the highest levels, followed by Austria, Switzerland, Belgium, Norway and Australia. The countries with low levels of class voting are the Netherlands, Germany, France, Finland, and Italy. The twocountries with the lowest levels are the United States and Canada. The question then is whether this ranking can also be found when examining the levels of manual/nonmanual class voting in these countries in the year 1980. To answer that question we compare the ranking of the countries in the last column with that for the Thomsen indices in Table 6.8. We find that the ranking of the countries is fairly similar. The main exceptions are obtained for Finland and Ireland. These exceptions, however, are more due to the fact that only two datasets for these countries were available (and thus the parameters are not robust), than to the fact that different class schemes were used. Leaving these countries aside, the Pearson-correlation between the entries in the second and the last main columns is 0.87 (N=14, p=0.00) and between the entries in the first and the last main columns 0.94 (N=11, p=0.00).[8] Thus, it can be concluded that the ranking of the countries, when measured by the EGP class scheme, is fairly similar to the ranking of the countries, when using the manual and nonmanual class scheme.

Next, we investigate whether the amount of decline differs for the two types of class voting, and whether the ranking of countries with respect to the amount of

Table 6.9. Comparison of linear trends (change/10 years) in levels of class voting according to Thomsen indices and delta indices

	Country dataset		Individual dataset		
	Thomsen index (Table 3.3)	N. of cases	Thomsen index (Table 3.4)	delta index (Table 6.6)	N. of cases
Australia	-0.18*	17	-0.26*	-0.16*	9
Austria	-0.27*	5	-0.50	-0.22	4
Belgium	-0.20*	20	-	-	-
Britain	-0.22*	30	-0.21*	-0.25*	12
Canada	-0.01	13	-	-	-
Denmark	-0.30*	29	-0.38	-0.40	6
Finland	-0.30	5	-3.51	-1.59	2
France	-0.15*	25	-	-	-
Germany	-0.31*	25	-0.16*	-0.19*	13
Greece	0.15	10	-	-	-
Ireland	-0.15	18	-1.78	-3.77	2
Italy	-0.19*	20	-0.10	-0.02	3
Luxembourg	-0.14	17	-	-	-
Netherlands	-0.01	25	-0.15*	-0.21*	14
Norway	-0.44*	11	-0.46*	-0.41*	7
Portugal	0.27	5	-	-	-
Spain	-0.16	6	-	-	-
Sweden	-0.27*	12	-0.46	-0.45*	2
Switzerland	-0.07	4	-0.14	0.04	2
United States	-0.12*	27	-0.06	0.01	24

Note: * $p < 0.05$

decline in class voting differs for EGP and manual/nonmanual class voting. The trends in class voting, when measured by EGP class scheme, in each of the countries are represented by the linear trend-parameters (δ_{1k}) of the *Country difference and country specific linear trend model* listed in Table 6.6. In all countries, except Switzerland and the United States, a negative trend-parameter is listed, implying a decline in the level of EGP class voting in these countries. The decline is most pronounced (ignoring Ireland and Finland) in Sweden, Norway, Denmark, followed by Britain, Austria, and the Netherlands, and modest in Germany, Australia, and Italy. Small increases in the levels of class voting are detected in Switzerland and the United States.

To examine whether the trends in class voting, when measured by the EGP class scheme, are comparable to the trends in class voting measured by the manual/nonmanual class scheme, we compare the linear trend-parameters in Table 6.6 with the linear trend-parameters concerning manual/nonmanual class voting

presented in Table 3.3, and Table 3.4. These trend-parameters are brought together and presented in Table 6.9.

A comparison of the trend-parameters for the manual/nonmanual class voting with those for the EGP class voting, shows that in all countries, except Switzerland and the United States, a declining trend is found, both when focusing on manual/nonmanual class voting and on EGP class voting. However, considering the fact that the trends for both types are not statistically significant, it can be assumed that for both types of class voting no increase or decrease has taken place in these countries. In the other countries it is clear that in general the larger the decline in manual/nonmanual class voting, the larger the decline in EGP class voting. The Pearson-correlation between the trend-parameters from Table 3.3 and those from Table 6.6 (again leaving Finland and Ireland aside) has the value 0.67 (N=11, p=0.012), and the correlation between those from Table 3.4 and Table 6.6 has the value 0.80 (N=11, p=0.001).[9]

Concluding we can say that, although measuring class voting with EGP classes is theoretically preferable, it is fairly incentive for variation in the composition of classes. Descriptions of the levels of class voting using both class schemes in general result in the same ranking of the countries with respect to the level of class voting and the amount of decline.

6.6 Conclusions

In this chapter we again addressed the descriptive research question on the differences between countries and changes over-time in levels of class voting in Western industrialized countries in the postwar period. In doing so, we followed the suggestions of third generation studies on stratification and politics. In studies of that generation criticisms had been made about the tendency in this research area to use a dichotomous class scheme, and measures of absolute differences in voting behaviour between classes. Scholars of the third generation argued that although substantial differences in levels of class voting across countries and declines in levels of class voting within countries were found when applying a manual/nonmanual class distinction and a measure of absolute class voting, this might not be the case when applying a more detailed class scheme and measures of relative class voting.

In this chapter we investigated whether differences between countries and trends within countries in levels of relative class voting could be found when applying a detailed class scheme. To examine this, data from 113 national representative surveys of sixteen Western industrialized countries over the period 1956-1990 were analysed. These survey data allowed us to distinguish between detailed

classes according to the EGP class scheme. To deal with detailed classes and to use log-odds-ratios as measure of the strength of the relationship between these two variables, we used special loglinear models for analysing the strength of the relationship between two categorical variables, such as social class and voting behaviour.

A major finding of this chapter was that *substantial differences in levels of class voting, when measured by EGP classes, have existed between democratic industrialized countries in the postwar period.* In fact, the ranking of the countries was similar to that found when examining the differences between countries in manual/nonmanual class voting. The Scandinavian countries had the highest levels and the United States and Canada the lowest. Furthermore, we found that *in many democratic industrialized countries in the postwar period a declining trend occurred in levels of class voting, when measured by EGP classes.* Again, these results resemble those of our examinations of the manual/nonmanual class voting in these countries. The strongest declines were found in the Scandinavian countries. In Switzerland and the United States no trends were found.

Our results thus correspond to the conclusions of Hout et al. (1994) that claims of the declining significance of class are unfounded in the United States. This is not obvious, since they used a different class scheme, and analysed data from the American Election Studies for the period after 1970, while for that period we used data from the General Social Surveys. We decided not to use the American National Election Studies, since we were unable to come to a comparable EGP class scheme with these data.

Our findings, however, do not correspond to those obtained by Heath et al. (1985), Evans et al. (1991) and Heath et al. (1995). They found over-time variations in levels of class voting in Britain over about the same period, but argued that this was trendless fluctuation. We found for the same period a declining trend in class voting in Britain. These different conclusions might be due to different analyses. First, we used not only data from the British Election studies as they did. We also analysed data from the International Social Science Program ongoing since 1985. Second, we restricted our analyses to men, while their analyses were based on both male and female respondents. The different conclusions, however, might also be due to different interpretation of the same type of findings. Heath et al. (1995) for example found that a model of linear trend resulted in a better fit than a no trend model, but did not fit better than the non-linear trend model (when classifying respondents to the class of the head of household). They concluded that no linear trend existed, where we concluded on similar results that trended variation took place.

However, leaving the findings for Britain aside, we suggest that in general substantial differences between countries have existed in levels of class voting

and that in most democratic industrialized countries significant declines in these levels have occurred. It thus remains of interest to search for explanations of the variation in class voting. In the next three chapters we pay attention to one particular explanation, i.e. one concerning the effects of intergenerational class mobility on levels of class voting.

7 Effects of Individual Intergenerational Class Mobility on Voting Behaviour

7.1 Introduction[1]

In this study our prime concern is with explaining the varying strength of the relationship between social class and voting behaviour in societies. Some of these explanations such as those tested in Chapter 4 concern solely the macro-level. Other explanations also take the micro-level into account. In the present and the next two chapters we focus on an explanation that makes assumptions at both the micro- and the macro-level. This explanation concerns the effects of rates of intergenerational class mobility in countries on the levels of class voting in these countries.

This explanation, that in particular has been suggested in studies of the first and third generation of research on stratification and politics, holds that we have to realize that classes in modern societies may be seen as comprising two types of persons: one more or less permanent "core" members, i.e. the intergenerationally immobile, the other made up of individuals of relatively recent membership, i.e. in our case the intergenerationally mobile. The latter are those who have either ascended or descended the social ladder with regard to their parents' social positions. Such intergenerational class mobility occurs in all Western countries, although its extent and pattern tend to differ across countries and over-time. Processes of class mobility, it is therefore argued, may help to explain "class-deviant" behaviour within a country (Abramson 1972) and cross-national and over-time variations in levels of class voting (Alford 1963; De Graaf & Ultee 1990). We examine the macro-level explanation linking the mobility patterns of countries with the levels of class voting in these countries in Chapter 9.

However, before doing that, in this and in the following chapter we investigate the micro-level relationship between intergenerational class mobility and individual voting behaviour. As was already indicated in Chapters 1 and 4, it is important to take the micro-level assumptions, upon which macro-level hypotheses are built, into account. Results of studies of the three generations of research on stratification and politics suggest that "intergenerational mobility may affect attitudes through two fundamentally different processes (Lipset & Zetterberg 1956; Lipset & Bendix 1959; Barber 1970; Abramson & Books 1971; Abramson 1972; Knoke 1973; Turner 1992; Weakliem 1992). Mobile individuals

may change their social and political attitudes as a result of their own mobility; or people may change their attitudes because they perceive *other* individuals as mobile" (Abramson & Books 1971). In the next chapter, we pay attention to the second process, but in the present chapter we focus on the first process when addressing the question: *What are the effects of individual intergenerational class mobility on the voting behaviour of intergenerationally mobile persons?*

The present chapter is, as discussed in Chapter 1, not the first study that examines the effects of class mobility on individual voting behaviour. Studies from all three distinguished generations have investigated these effects. Over these three generations considerable progress has been made with respect to the content of hypotheses, measurement procedures, data collection and techniques of analyses. In studies of the first generation relatively unspecified hypotheses were tested by inspecting with the naked eye percentage figures in tables cross-classifying manual and nonmanual classes with voting behaviour. These cross-tabulations were constructed from relatively small datasets. In studies of the third generation more precise hypotheses were tested. Furthermore, these studies analysed good quality data from large scale surveys containing information about detailed class schemes. In addition, complicated and - more importantly - substantively appropriate techniques of analyses were employed.

In this chapter we build on the studies of the third generation in various ways. First, we discuss two main explanations of the relationship between class and voting behaviour that are central in these studies. Based on these explanations, we suggest some precise hypotheses about the effects of individuals' intergenerational class mobility on their voting behaviour. Second, we employ, as in the previous two chapters, our individual dataset containing data from sixteen countries. These data contain detailed information about current and former class position of respondents. Also as in the previous two chapters, we select from the data male respondents, aged eighteen years or older who had a valid score on all relevant variables. This results in a dataset comprising 63,120 respondents. Third, to analyse these data we use models that are especially designed to analyse the effects of class mobility.

The outline of this chapter is as follows. In Section 2 we discuss two main explanations of the relationship between class and voting behaviour. On the basis of these explanations we suggest some hypotheses about the effects of individuals' intergenerational class mobility on their voting behaviour. In Section 3 we discuss the models we use to test these hypotheses. The results of these tests are presented in Section 4. In the last section, Section 5, some conclusions are drawn.

7.2 Hypotheses

In order to gain insight into the consequences of intergenerational class mobility, we begin with two main approaches of individual voting behaviour. The first is the so-called "economic theory of political behaviour" (Downs 1957), sometimes also known as the "instrumental theory". Its basic idea is that voting behaviour is rational and self-interested: people vote for the party whose policies will bring them the greatest utility. Class voting can then be explained on the grounds that people in lower social classes have an interest in egalitarian redistributive policies, which are typically espoused by left-wing parties, while the members of higher social classes have an interest in opposing such policies (Lipset et al. 1954).

The second approach, labelled by Heath et al. (1985: 9) the "expressive theory", conceives voting as a social act rather than an instrumental one. In this theory, it is assumed that people have a political identity and that this identity is developed through interaction with others. Individual voting behaviour is thus an expression of a person's political identity and will in turn reflect the norms and values of a person's normative membership group. With this theory, too, it is relatively straightforward to explain the relationship between class position and voting behaviour. In many cases people associate with others occupying the same class position. They are raised by them, live in the same area as them, attend the same schools, work together as colleagues, and thus learn the traditional culture of their shared class. Consequently, they will vote in the way their fellow class members traditionally vote.

These two approaches are quite different with respect to their initial assumptions but, in predicting the relationship between class and voting behaviour, they are not contradictory but complementary (Heath et al. 1985: 9; see also: Weakliem & Heath 1994a). This complementary relationship can be stated thus: people vote for the same party both because of their analogous interests *and* because they are influenced by each other and this influence carries on in later periods. We might add that associating with others from the same class and thus having similar interests, may make people more conscious of their interests and of the party that best serves them. These interests will then become part of people's political identity.

When we turn to the relationship between individual class mobility and voting behaviour, according to the simplest version of the theories, intergenerationally mobile persons are only assumed to interact with people of their newly obtained class. Furthermore, they are assumed to base their voting behaviour on their current class interests. Thus, the simplest application of the instrumental and expressive theory predicts that the voting behaviour of the mobile is only affected

by their current class position, and not by their class of origin. This yields what De Graaf & Ultee (1990) have labelled the *strict economic hypothesis*:

The voting behaviour of intergenerationally mobile people will be identical to the typical voting behaviour of their class of destination.

This hypothesis may seem superfluous, because it is unlikely that people's origins have no effect on their voting behaviour. Although the interests of mobile people may change, their identities do not change so quickly. However, this hypothesis provides a baseline against which other more plausible hypotheses can be tested. In fact, this baseline hypothesis was already discussed and tested in Chapter 6.

A number of empirical studies from the various generations of research on stratification and politics have investigated the impact of class mobility on individual voting behaviour (Lipset & Zetterberg 1956; Lipset & Bendix 1959; Barber 1970; Abramson 1972; Knoke 1973; Turner 1992; Weakliem 1992). Almost invariably they have shown that the political behaviour of the mobile is somewhere between that of the stable members of their origin and destination classes.

Some modest influence from social origins might also be expected if we consider an elaboration of instrumental and expressive theories. People might expect their current class positions to be temporary and might anticipate returning to their class of origin; hence they might define their long-run interests to be those of their class of origin.[2] For example, in many cases sons of farmers, who are currently agricultural labourers, know that in the near future they will take over their fathers' farms and become farmers themselves. This may cause them to exhibit patterns of political behaviour that are more in line with the class from which they came (and that to which they are likely to return) than the class to which they currently belong. Another reason why class origins may influence people's political identities and their voting behaviour is that, as Goldthorpe (1980) points out, people are likely to interact with members of their former class, and not only with members of their own current class. Therefore, the *weak economic hypothesis* reads:

The voting behaviour of intergenerationally mobile people will be between the typical voting behaviour of their class of destination and the typical voting behaviour of their class of origin.

This hypothesis only says that the voting behaviour will be "somewhere" between that of the origin and destination class. A less vague hypothesis predicts that social origins will have a more important role for young people than for older people. This specification is in line with Blau's "pattern of acculturation" (1956) and follows the expressive theory of voting behaviour. The culture of people's origin class is likely to be particularly important in early political socialization (Campbell et al. 1960; Butler & Stokes 1974; Nieuwbeerta & Wittebrood 1995).

Furthermore, social networks change slowly and it may take time for the mobile to integrate socially into their class of destination and thereby lose their old social identities. Thus, assuming that older respondents in general have had longer periods in their class of destination than have younger people, the *acculturation hypothesis* can be formulated:[3]

> *The voting behaviour of older intergenerationally mobile people will be closer to the typical voting behaviour of their class of destination relative to the typical voting behaviour of their class of origin, than will the voting behaviour of younger intergenerationally mobile people.*

Another specification of the weak economic hypothesis assumes an asymmetry in the patterns of adaptation of upwardly and downwardly mobile people. Lipset (1960), for example, found when analysing data for the United States in 1948, that upwardly mobile people adapted more quickly to their destination class than did those who were downwardly mobile. Lipset's explanation of this finding was that people in general prefer to adopt the more prestigious identity and, thereby, to maximize their status. That is, people may prefer to perceive their normative reference group as whichever is the higher of their classes of origin and destination. Similar statements have been made by Parkin (1971: 51, 54), Thorburn (1979), Abramson (1972), and De Graaf & Ultee (1990). The *status maximization hypothesis*, then, is that:

> *Upwardly intergenerationally mobile persons orient their voting behaviour relatively more to the typical voting behaviour of their class of destination, than do downwardly intergenerationally mobile persons.*[4]

The acculturation hypothesis and the status maximization hypothesis are not mutually exclusive, since the latter does not say how fast the maximization process proceeds. Therefore, three additional possibilities can be specified regarding how the voting behaviour of intergenerationally mobile persons might be affected by their individual class mobility. A first combination of the acculturation and the status maximization hypothesis implies that the upwardly mobile who have just arrived in their class of destination instantly adjust more than the downwardly mobility who have just arrived in their class of destination. Subsequently, for both the upwardly and downwardly mobile it takes the same number of years to adopt to their new class. A second combination implies that, while for the upwardly and downwardly mobile the initial adjustment to their destination class is the same, the acculturation to their new class takes less years for the upwardly mobile than for the downwardly mobile. Since the upwardly mobile gain status, they adapt faster to their class of destination than the downwardly mobile. A third combination implies that the first two combinations are simultaneously valid.

7.3 Modelling the effects of individual class mobility

The formulated hypotheses distinguish between the voting behaviour of mobile and immobile individuals. Furthermore, in these hypotheses the voting behaviour of the immobile is taken as a reference for the voting behaviour of the mobile. The importance of taking the immobile as the reference has been suggested by - among others - Sorokin (1959 [1927]: 509-10), when he argued that "if we want to know the characteristic attitudes of a farmer, we do not go to a man who has been a farmer for a few months, but go to a farmer who is a farmer for life". Even better, we would argue, go to a farmer who was born and bred a farmer. We thus think of the immobile respondents as representing the core of the class and defining its norms and values to which newcomers may or may not acculturate. We therefore need a statistical model which corresponds to these substantive concerns.

As discussed in Chapter 1, scholars from the first generation of research on stratification and voting behaviour analysed cross-tabulations with the naked eye, when examining the effects of class mobility on voting behaviour. Scholars from the second generation were the first to use statistical models to investigate the effects of individual class mobility on people's voting behaviour (Knoke, 1973; Jackman 1972a, 1972b; Thorburn 1979). In these models, voting behaviour was the variable to be explained, while origin, destination and a term for interaction between origin and destination were explanatory variables. These second generation models, however, did not correspond to the substantive concerns expressed above. As Hope (1971) and Sobel (1981) made clear, in these conventional models the explanatory (reference) categories include - probably different - mixtures of mobile and immobile respondents.[5]

Fortunately, studies of the third generation have at their disposal a model that takes the voting behaviour of the immobile as a reference for the voting behaviour of the mobile. This substantively more appropriate model is Sobel's diagonal mobility model (Sobel 1981, 1985).[6] In this model the voting behaviour of mobile individuals is modelled in such a way that it is a weighted average of the voting behaviour of the immobile in their classes of origin and that of the immobile in their classes of destination. The model therefore does away with vague conclusions that the voting behaviour of mobility is somewhere in between the voting behaviour of their origin and destination class. The diagonal mobility model allows us to examine precisely how much closer the voting behaviour of the mobile is to the voting behaviour of the immobile members in their class of destination than to that of the immobile members in their class of origin. These diagonal mobility models were introduced into research on stratification and politics by De Graaf & Ultee (1987, 1990), when they examined the effects of

class mobility on voting behaviour in the Netherlands. Since then these diagonal mobility models have been employed in various studies analysing the effects of mobility on voting behaviour in other countries (Weakliem 1992; Clifford & Heath 1993; Breen & Whelan 1994; De Graaf et al. 1995).

The logistic version of the diagonal mobility model that we apply in this chapter to test the hypotheses can be expressed as follows:[7]

$$\log((\pi^*Left_{iod})/(1 - \pi^*Left_{iod})) = p\ \alpha_d + (1\text{-}p)\ \alpha_o + \beta_L{}^*cov_{Liod} \qquad (1)$$

where $Left_{iod}$ is the value of the dependent variable, i.e. left-wing voting behaviour of respondent i, whose origin class was o, and whose current (destination) class is d. Obviously, for immobile class members the origin and destination classes are the same (o=d). The variable *Left* is coded (1) for voting for a left-wing political party and (0) for voting for a right-wing party. The α_d-parameters represent the log-odds of voting for a left-wing rather than a right-wing party for the immobile class members in the destination class of the respondent. The α_o-parameters represent the voting behaviour of the immobile class members in the origin class of the respondent. Therefore, the parameters p and (1-p) are destination and origin weights which indicate for mobile respondents the relative importance of the voting behaviour of the destination and the origin classes (Sobel 1981).[8]

When fitting the models we include various dummies as covariates (*cov*) and estimate a β-parameter for each covariate. Consequently, if we have L dummies we have to estimate L β-parameters. The covariates are included because when testing the formulated hypotheses on the effects of individual class mobility we have to realize that, as we also found in Chapter 4, people vote not only according to their material interests, but also according to their non-material interests. Therefore, we can assume that people's voting behaviour, as well as being influenced by their current and former class positions, is also affected by their religion, age, ethnicity and the period the live in. When investigating the effects of their current and former class positions, it is therefore important to control for the effects of these variables. In our models religion is divided into five groups: Catholic, Protestant, Rereformed (for The Netherlands only), other denomination and no religion. Given the importance of ethnicity for predicting voting behaviour in the United States we include ethnicity (0 = non-black; 1 = black) for the United States. For the other countries there are so few blacks that ethnicity can not sensibly be included as an independent variable. Furthermore, to take account of the main effects of age we include three age groups (18-30; 31-50; 51+) as covariates since there appears to be non-linear relationships between age and party preference. In addition, we recode the variable period into a set of dummies representing several periods in which the surveys were held:

1961-1965, 1966-1970, 1971-1975, 1976-1980, 1981-1985, and 1986-1990.[9] This controls for the varying popularity of the left-wing and right-wing political parties over-time. In our models we have chosen the reference category as: no religion, age group 31-50, non-black, and period 1981-1985. However, for countries where no information on respondents in this reference category were available, other reference categories are taken.

The model that is given by equation (1), model A (in Tables 7.2 and 7.3), represents the *weak economic hypothesis*. This hypothesis states that the voting behaviour of mobile persons will be between the typical votin behaviour of their class of destination and that of their class of origin. To test the other formulated hypotheses, we adjust model A by constraining the p-parameter, or by including extra parameters in the model.

The *strict economic hypothesis* predicts that the voting behaviour of the mobile will only be affected by current class position, and not by class of origin. Therefore, the voting behaviour of intergenerationally mobile people will be identical to the typical voting behaviour in their class of destination. This hypothesis is represented by constraining the weight-parameter p to unity. This gives model B:

$$\log((\pi^*Left_{iod})/(1 - \pi^*Left_{iod})) = \alpha_d + \beta_L^*cov_{Liod} \qquad (2)$$

The *acculturation hypothesis* states that the older people are, the greater is the influence of their destination class relative to that of their origin class. In other words, this hypothesis implies that the weight-parameter p varies according to the length of time that a person has been a member of a class. Model C represents the acculturation hypothesis and therefore includes an interaction between age and the origin and destination weights:

$$\log((\pi^*Left_{iod})/(1 - \pi^*Left_{iod})) = (p_0 + \delta^*age) * \alpha_d + (1- (p_0 + \delta^*age)) * \alpha_o + \beta_L^*cov_{Liod} \qquad (3)$$

A positive value of the δ-parameter estimate in this equation implies that the older mobile persons are, i.e. the longer they have been members of their destination class, the more likely it is that they vote according to the voting behaviour in their destination class and the less likely it is that they vote according to the voting behaviour in their origin class. In order to get interpretable parameter estimates for the p_0 variable, when applying this model the continuous variable age was recoded to: years of age minus 40. Thus, the value zero represents respondents with the age of 40 years. This is about the average age in each country.

The *status maximization hypothesis* predicts that upwardly intergenerationally mobile persons orient their voting behaviour relatively more towards the voting behaviour of their class of destination than do downwardly intergenerationally mobile persons. To test this hypothesis we use Model D, which is identical to the model that represented the acculturation hypothesis, except that the variable age is replaced by a variable *up/down*:

$$\log((\pi^*Left_{iod})/(1 - \pi^*Left_{iod})) = (p_0 + \delta^*up/down) * \alpha_d + (1- (p_0 + \delta^*up/down)) * \alpha_o + \beta_L^*cov_{Liod} \quad (4)$$

The variable *up/down* in this equation takes the value 1 for upwardly mobile, -1 for downwardly mobile, and 0 for stable class members. To be able to define whether a class member is upwardly mobile, downwardly mobile or stable, an ordering of the EGP class categories is necessary. However, the EGP scheme is not constructed around one single principle from which a full ordering of the classes can be derived. But, following Erikson & Goldthorpe (1992: 45), a threefold hierarchical division between classes, in terms of their prestige, socio-economic status, or "general desirability", can be distinguished. According to this hierarchical division the highest class is formed by the service class, the lowest class by the unskilled manual workers and agricultural workers, and the other classes, i.e. the skilled manual class, the routine nonmanual class, the petty bourgeoisie and farmers, form the intermediate class.

To test the three *combinations of the acculturation hypothesis and status maximization hypothesis* that we discussed, we include both the *age* and *up/down* variables in our models. A first combination of the acculturation and the status maximization hypotheses implies that upwardly mobile persons who have just arrived in their class of destination instantly adjust more than the downwardly mobile persons who have just arrived in their class of destination, but also that there are no differences in the acculturation or age effect between upwardly and downwardly mobile. To test this combination hypothesis, we use Model E where both the additive effects of up/down and age are included:

$$\log((\pi^*Left_{iod})/(1 - \pi^*Left_{iod})) = (p_0+ \delta_1^*age + \delta_2^*up/down) * \alpha_d + (1-(p_0+ \delta_1^*age + \delta_2^*up/down)) * \alpha_o + \beta_L^*cov_{Liod} \quad (5)$$

A second combination implies that, since the upwardly mobile gain status, they will adapt faster to their class of destination than will the downwardly mobile. Thus, the acculturation to their new class takes more years for the upwardly mobile than for the downwardly mobile. To test this combination hypothesis we

Table 7.1. Percentage of left-wing voters by origin and destination class in Germany, Britain, the Netherlands and the United States

	Destination class							
	Unskilled manual	Skilled manual	Agric. Labourer	Routine nonmanual	Service class	Petty bourg.	Farmers	Total
Origin class								
Germany								
Unskilled manual	56	64	60	48	47	16	0	55
Skilled manual	59	61	44	46	45	17	31	53
Agric. labourers	61	60	52	52	36	21	0	55
Routine nonmanual	58	57	67	45	40	17	0	46
Service class	51	44	11	34	32	22	33	35
Petty bourgeoisie	37	37	52	28	28	12	0	28
Farmers	37	38	18	19	21	15	7	25
Total	53	56	41	40	37	16	8	44
N. of cases	1353	3892	126	1250	3146	484	345	10596
Britain								
Unskilled manual	61	61	46	39	28	28	0	52
Skilled manual	63	61	35	39	26	17	0	49
Agric. labourers	55	56	41	34	15	34	58	47
Routine nonmanual	46	39	-	33	15	25	-	28
Service class	42	29	10	22	13	14	9	19
Petty bourgeoisie	34	29	0	20	14	11	0	20
Farmers	57	41	24	7	16	25	8	27
Total	57	56	34	32	20	19	9	40
N. of cases	1410	1833	96	507	1725	483	113	6168

Table 7.1. (Continued)

	Destination class							
	Unskilled manual	Skilled manual	Agric. Labourer	Routine nonmanual	Service class	Petty bourg.	Farmers	Total
Origin class								
Netherlands								
Unskilled manual	60	53	42	39	36	34	48	48
Skilled manual	54	50	51	40	37	28	13	44
Agric. labourers	49	53	37	43	31	23	32	42
Routine nonmanual	44	47	33	34	28	13	50	33
Service class	36	39	22	26	21	24	26	25
Petty bourgeoisie	38	36	25	28	19	7	6	23
Farmers	29	26	12	16	18	11	5	16
Total	48	46	28	32	26	15	8	33
N. of cases	954	1557	155	1183	2443	390	404	7086
United States								
Unskilled manual	53	49	23	52	39	38	54	47
Skilled manual	49	45	40	35	32	35	28	41
Agric. labourers	68	43	63	95	50	73	72	62
Routine nonmanual	32	36	-	21	35	49	0	33
Service class	40	39	14	31	31	23	9	33
Petty bourgeoisie	48	40	43	54	33	39	54	41
Farmers	53	42	43	39	33	39	34	41
Total	39	44	39	38	33	35	35	40
N. of cases	2122	2271	87	930	3148	447	367	9372

use Model F, where - in addition to the acculturation or age effect - an interaction effect between the variables age and up/down is included:

$$\log((\pi^*Left_{iod})/(1 - \pi^*Left_{iod})) = (p_0 + \delta_1^*age + \delta_2^*age^*up/down) * \alpha_d + (1-(p_0 + \delta_1^*age + \delta_2^*age^*up/down)) * \alpha_o + \beta_L^*cov_{Liod} \quad (6)$$

The third combination implies that both the instant adjustment and the acculturation over the years are different for the upwardly and downwardly mobile. Therefore, in Model G we include both the additive effect of up/down and the interaction effect between the variables age and up/down in the diagonal mobility models:

$$\log((\pi^*Left_{iod})/(1 - \pi^*Left_{iod})) = (p_0 + \delta_1^*age + \delta_2^*up/down + \delta_3^*age^*up/down) * \alpha_d + (1- (p_0 + \delta_1^*age + \delta_2^*up/down + \delta_3^*age^*up/down)) \alpha_o + \beta_L^*cov_{Liod} \quad (7)$$

Models A to G are fitted on the data for all sixteen countries separately. To select the model that represents the data best, we compare the fit of one model with a less general one, i.e. one that is nested within that model.

7.4 Results

Before applying the diagonal mobility models, we first make clear the difficulties that scholars of the first generation of research on social stratification and voting behaviour had, when they had to examine the effects of mobility on voting behaviour by analysing cross-tabulations. In studies of the first generation scholars typically presented cross-tabulations on the voting behaviour of the mobile and immobile class members. In Table 7.1 we give an example of such a table based on data from our own dataset. This table displays the proportion of respondents with left-wing voting behaviour in each category of the intergenerational mobility table. Although in subsequent analyses we look at data for all sixteen countries, in Table 7.1 figures for only four countries are presented, i.e. Germany, Britain, the Netherlands, and the United States. These countries were selected for two reasons. First, there are obvious technical advantages of using countries for which large datasets are available (for example, respondents are included in almost all cells of the table). Second, the countries chosen allowed us to include considerable variation in levels of class voting. In Britain the level of class voting is relatively high, in Germany and the Netherlands it is moderate,

and in the United States it is relatively low.

In Table 7.1 we find, as already discussed in Chapter 6, that class has a clear relationship with voting behaviour. In all countries except the United States farmers form the least and the unskilled manual class the most left-wing class. Table 7.1 also shows that in all four countries the voting behaviour of mobile people is typically different to that of the stable members of their destination class. For example, unskilled manual class workers from service class backgrounds display lower levels of left-wing voting behaviour than is the case among the stable members of the unskilled manual class. Conversely, persons who move into the service class from the unskilled manual class tend to display lower levels of left-wing voting behaviour than do the intergenerationally stable service class members. In general, Table 7.1 shows that the voting behaviour of the mobile is in between that of their origin and destination class. However, whether the voting behaviour of the mobile in these countries is also statistically different from the origin and/or destination class, and whether the voting behaviour of the upwardly mobile is statistically closer to that in their destination class than is the case for the downwardly mobile, can not be analysed by simply looking at the figures in Table 7.1. To answer these questions, we employ the diagonal mobility models designed for this purpose.

Model selection

To test our hypotheses for all our countries, we need to choose between the diagonal mobility models A to G, each representing a single hypothesis. We fit these models separately for each country. Thus, let us first examine the fit statistics of the diagonal mobility models. As in Chapter 6, we use the Likelihood-ratio test and the BIC to detect whether the fits of the various models differ significantly. These fit statistics are presented in Table 7.2 and Table 7.3.

In Model A, representing our *weak economic hypothesis*, it is assumed that there are no differences between upwardly and downwardly mobile people and no acculturation effect. On the basis of the negative BIC in each country, we conclude that this model gives a reasonable presentation of the data. To examine whether this hypothesis can be accepted, we next test the other formulated hypotheses.

The *strict economic hypothesis* assumes that the voting behaviour of the mobile will only be affected by their current class position. This hypothesis is represented by Model B. This model uses one degree of freedom less than Model A. However, according to the Likelihood-ratio test and the BIC, Model A gives a much better representation of our data in most countries. Only in Belgium and

Table 7.2. Fit statistics (L^2) of diagonal mobility models for the relative influence of respondent's origin and destination class on his voting behaviour

	model A		Change in L^2 compared to model A						
	df	L^2	B Δdf=-1	C Δdf=1	D Δdf=1	E Δdf=2	F Δdf=2	G Δdf=3	N. of cases
Australia	18	10051.6	-174.7	3.9	4.7	8.2	9.9	11.7	8,083
Austria	15	946.0	-39.1	5.4	1.2	6.5	9.4	9.5	837
Belgium	10	357.8	-3.2	0.9	0.2	0.9	1.2	1.2	345
Britain	18	7038.4	-179.3	8.0	3.7	1.8	0.9	1.7	1,107
Canada	13	919.2	-1.2	1.8	1.2	17.7	13.1	17.9	3,149
Denmark	10	3499.0	-211.1	12.6	4.3	13.2	13.1	13.2	648
Finland	10	635.0	-66.0	13.0	0.0	2.1	1.8	2.1	1,954
France	11	2421.6	-41.9	1.9	0.2	8.6	12.1	12.4	10,596
Germany	17	13090.3	-276.8	8.3	0.0	4.2	1.7	4.2	791
Ireland	13	576.8	-13.6	1.3	3.5	10.7	6.4	13.4	3,496
Italy	12	4686.3	-15.5	5.1	5.9	17.1	19.2	19.3	7,086
Netherlands	18	7438.6	-174.6	17.1	0.1	1.7	1.4	2.2	4,096
Norway	15	4584.4	-291.6	0.4	1.2	2.4	2.9	3.7	583
Sweden	11	612.4	-49.3	2.3	0.2	6.2	3.6	6.7	1,107
Switzerland	15	1006.3	-18.0	0.6	5.8	11.9	10.9	13.4	6,168
United States	19	11949.8	-54.7	15.3	0.2	15.3	16.5	16.6	13,074

Note: The variable Year was centred around 1980.

Table 7.3. Fit statistics (BIC) of diagonal mobility models for the relative influence of respondent's origin and destination class on his voting behaviour

	model A		Change in BIC compared to model A						
	df	BIC	B Δdf=-1	C Δdf=1	D Δdf=1	E Δdf=2	F Δdf=2	G Δdf=3	N. of cases
Australia	18	-62513.4	165.7	5.2	4.3	9.8	8.1	15.3	8,083
Austria	15	-4585.9	32.4	1.3	5.5	7.0	4.0	10.6	837
Belgium	10	-1599.8	-2.7	5.1	5.7	10.8	10.5	16.3	345
Britain	18	-46633.5	170.6	0.7	5.0	5.6	6.7	12.8	6,168
Canada	13	-6749.1	-5.8	6.1	5.3	12.2	13.1	19.0	1,107
Denmark	10	-21785.1	203.0	-4.5	3.8	-1.6	3.0	6.2	3,149
Finland	10	-3495.3	59.5	-6.6	6.5	-0.3	0.1	6.2	648
France	11	-12301.8	34.3	5.7	7.4	13.1	13.3	20.6	1,954
Germany	17	-84958.3	267.6	1.0	9.2	9.8	6.4	15.4	10,596
Ireland	13	-4615.1	6.9	5.4	3.2	9.2	11.6	15.8	791
Italy	12	-23743.9	6.7	3.5	2.7	6.4	10.8	12.4	3,496
Netherlands	18	-55225.4	165.8	-8.2	8.8	0.7	1.4	7.3	7,086
Norway	15	-29360.4	283.3	7.9	7.1	15.0	15.2	22.8	4,096
Sweden	11	-3030.2	42.9	4.1	6.2	10.3	9.8	15.4	583
Switzerland	15	-6648.0	11.0	6.4	1.2	7.8	10.5	14.3	1,107
United States	19	-106790.0	45.2	-5.8	9.3	3.7	2.4	11.9	13,074

Notes: The variable Year was centred around 1980.
The formula of the BIC is: $BIC = L^2 - (N-df_{used})*\log(N)$.

Canada is Model B preferable to Model A. Consequently, in general we have to reject the strict economic hypothesis in favour of the weak economic hypothesis.

Model C represents the *acculturation hypothesis*, which predicts that the older a person is, the larger the influence of destination class relative to origin class is on voting behaviour. The figures in Table 7.2 show that in nine of the sixteen countries, according to the Likelihood-ratio test, Model C results in a significant improvement in fit compared with Model A. In four of these nine countries, Model C also represents the data better according to the BIC. These countries are Denmark, Finland, the Netherlands, United States. Furthermore, in three countries, i.e. Austria, Germany and Britain, the BIC of Model C differs less than two from the BIC of Model A. Thus, in seven countries Model C is to be preferred to Model A. In the other countries under investigation, according to the Likelihood-ratio test and/or the BIC, Model C does not yield a significant improvement in fit compared to Model A. Consequently, in general we can not decide between the weak economic hypothesis and the acculturation hypothesis.

Next, the *status maximization hypothesis* predicts that upwardly intergenerationally mobile people orient their voting behaviour relatively more to the voting behaviour of their class of destination than is true for downwardly mobile persons. This hypothesis is represented by Model D. According to both the Likelihood-ratio test and the BIC, Model D does not result in a significant improvement in fit either compared to Model C or, for those countries where Model C does not fit better than Model A, compared to Model A. Consequently, the status maximization hypothesis has to be rejected.

Finally, the three *combinations of the acculturation hypothesis and the status maximization hypothesis* formulated earlier, are represented by Models E, F and G. Tables 7.2 and 7.3 show that, according to the BIC, in none of the countries under investigation these three models are to be preferred to the acculturation model (Model C) or the weak economic model (Model A). Thus, we have to reject the hypothesis that the downwardly mobile and upwardly mobile differ in their acculturation patterns.

To conclude this section we suggest that Model C, representing the acculturation hypothesis, gives the best representation of the data in seven countries. These countries are Austria, Britain, Denmark, Finland, Germany, the Netherlands, and the United States. In the other countries, however, the acculturation hypothesis is not corroborated. In these countries - Australia, Belgium, Canada, France, Ireland, Italy, Norway, Sweden, Switzerland - Model A representing the weak economic hypothesis, is preferable. Consequently, in all countries the other hypotheses, i.e. the strict economic hypothesis, the status maximization hypothesis, and the combinations of the acculturation and status maximization hypothesis, cannot be accepted.

Parameter estimates

Because the model selection did not yield a clear conclusion about whether the model representing the weak economic hypothesis or that representing the acculturation hypothesis was preferable, we next examine the parameter estimates of both models (Model A and Model C) for all countries. The most important are the weight-parameter p (both in Model A and C) and the acculturation-parameter δ (in Model C). These parameters for both models are given in Table 7.4. Models A and C, of course, also yield parameter estimates for the covariates *religion*, *age*, *ethnicity* and *period*. However, since reporting the parameters for all covariates for all country specific models would require very large tables and would not provide information about the effects of class mobility on individual class voting, we do not report them here.

The weight-parameters for Model A, representing the weak economic hypothesis, are given in the first main column of Table 7.4. The weak economic hypothesis assumes that the voting behaviour of intergenerationally mobile people will be between the typical voting behaviour of their class of destination and that of their class of origin. This implies that the weight-parameter p (indicating the relative weight of the destination class) of this model is assumed to be between zero and one.[10] The estimates of the weight-parameter p show that this is the case. In all countries, except Canada, the estimated values of the p-parameter are between 0.55 and 0.70. Furthermore, the standard errors of these estimates are very small. Thus, the parameter estimates support the weak economic hypothesis. Because in all countries the value of the p-parameter exceeds 0.50, the weight of the destination class is larger than that of the origin class. The only exception is the estimated weight-parameter for Canada that has the value 1.484 which is hard to interpret. This incomprehensible result is probably due to the fact that the data are not well described by the model, since in Canada classes hardly differ in their voting behaviour.

In Table 7.4 the relevant parameters of Model C for all countries are presented. This models gives the best representation of our data for seven countries: Austria, Britain, Denmark, Finland, Germany, the Netherlands, and United States. Model C represents the acculturation hypothesis, which assumes that the older intergenerationally mobile people are, the closer their voting behaviour will be to the typical voting behaviour of their class of destination relative to that of their class of origin. Model C therefore includes a weight-parameter p_0 and an acculturation effect parameter δ, i.e. an interaction between age and the origin and destination weights. If the acculturation hypothesis holds (and because - as indicated earlier - we coded the continuous *age* variable as: age - 40), the estimate of the p_0-parameter has to take a value between zero and one, and the

Table 7.4. Parameter estimates of models representing the weak economic hypothesis (Model A) and the acculturation hypothesis (Model C)

	Model A: Weak economic hypothesis		Model C: Acculturation hypothesis			
	Weight parameter p	s.e.	Weight parameter p_0	s.e.	Acculturation parameter δ	s.e.
Australia	0.676*	0.027	0.662*	0.029	0.003	0.002
Austria	0.626*	0.069	0.579*	0.072	0.009*	0.005
Belgium	0.678*	0.205	0.628*	0.228	0.012	0.013
Britain	0.606*	0.030	0.585*	0.031	0.004*	0.002
Canada	1.484*	0.585	1.747*	0.710	-0.023	0.021
Denmark	0.674*	0.028	0.656*	0.029	0.006*	0.002
Finland	0.615*	0.047	0.622*	0.048	0.010*	0.004
France	0.621*	0.063	0.584*	0.070	0.004	0.004
Germany	0.650*	0.028	0.612*	0.032	0.003*	0.002
Ireland	0.604*	0.102	0.559*	0.105	0.007	0.006
Italy	0.712*	0.085	0.674*	0.086	0.010	0.006
Netherlands	0.596*	0.034	0.559*	0.035	0.007*	0.002
Norway	0.539*	0.026	0.535*	0.027	0.001	0.002
Sweden	0.575*	0.059	0.546*	0.065	0.005	0.004
Switzerland	0.693*	0.071	0.663*	0.082	0.003	0.004
United States	0.567*	0.054	0.548*	0.055	0.010*	0.003

Note: * $p < 0.05$.

acculturation-parameter estimate has to take a positive value.

The figures in Table 7.4 give the estimates of the country weight-parameter p_0 and the acculturation-parameter δ for all countries. The results for all countries - except Canada - are the following. The weight-parameter estimates are all between 0.55 and 0.66. Furthermore, the estimates of the acculturation-parameters have positive values for all countries. This indicates that the older the intergenerationally mobile get, the more they adopt the voting behaviour of their class of destination. In the seven countries for which the acculturation model gives the best representation of the data, the acculturation-parameters are statistically significant from zero. Furthermore, it should be noted that the acculturation-parameter estimates also have positive - although not statistically significant - values in all countries where Model C does not give a statistically better fit than Model A. This result gives a strong indication that in general the acculturation hypothesis is supported.

Substantially the values of the acculturation-parameter estimates tell an interesting story. For example, in the Britain - a country with a relatively strong relationship between class and voting behaviour - the weight-parameter p_0 is 0.585 (s.e. 0.031) and the acculturation-parameter δ is 0.004 (s.e. 0.002). These results imply that in Britain for mobile persons at the age of 40, the destination class has a little more impact than their origin class. Furthermore, the acculturation-parameters implies that each year people get older the destination class becomes a little more important, i.e. by 0.4 per cent. Apparently, the cumulative impact of acculturation over the life-span is substantial. The model suggests that, for people aged eighteen, the relative destination and origin weights are respectively 0.585 - 22*0.004, or 0.497, and 1 - 0.497, or 0.503. This implies that for our youngest respondents the effect of their origin class is almost equal to that of their destination class. By the time they have reached sixty five years of age (coded 25 on our age variable), the relative destination and origin effects become 0.585 + 25*0.004, or 0.685, and 1 - 0.685, or 0.315 respectively. These figures indicate that the destination effect is twice the size of the origin effect. However, the origin still has a substantial impact on the voting behaviour of those aged sixty five and over.

This pattern for Britain also holds for all other countries, except of course Canada. For example, in the Netherlands - a country with a much weaker relationship between class and voting behaviour than in Britain - the coefficients of the acculturation-parameters indicate that at the age of 18 the relative destination weight is 0.405, at the age of 40 it is 0.559, and at the age of 65 the destination weight is 0.734. Furthermore, in the United States - a country with a very low level of class voting - the destination weight has the value 0.328 at the age of 18, 0.548 at the age of 40 and 0.798 at the age of 65. Thus, in all

countries the destination class has less impact than the origin class when the intergenerationally mobile class members are young. The older mobile class members are, the stronger the relative impact of the destination class is. For mobile people older than about 35 years of age, is their destination class is more important than their origin class. However, even when mobile people are about 65 years old, their origin class still has a substantial impact on their voting behaviour.

7.5 Conclusions

In this chapter, we examined the impact of intergenerational class mobility on individual voting behaviour. Four hypotheses concerning the effects of mobility on voting behaviour were tested using a research design characteristic for studies of the third generation. That is, we used the design of Sobel's diagonal mobility models analysing 113 cross-sectional datasets representing sixteen countries over the period 1956-1990.

In all countries we found that *the voting behaviour of the intergenerationally mobile was between the typical voting behaviour of their class of destination and that of their class of origin. In fact, the outcomes of the analyses showed that the effect of people's destination class was larger than that of their origin class.*

Furthermore, we found in seven countries - Austria, Britain, Denmark, Finland, Germany, the Netherlands, and the United States - that *the voting behaviour of older intergenerationally mobile people was closer to the typical voting behaviour of their class of destination relative to the typical voting behaviour of their class of origin, than was the case for the voting behaviour of younger intergenerationally mobile people. For our youngest respondents the effect of class origin was almost equal to that of class destination. By the time respondents reached sixty five years of age the relative destination effect was two times the size of the origin effect,* although the latter still had a substantial impact on the voting behaviour of this age group.

The results of our analyses furthermore implied that two hypotheses could not be accepted. The first hypothesis assumed that no effects of people's origin class exist. This assumption has already been rejected by most earlier studies on stratification and politics an its rejection here is thus in line with these studies. The other hypothesis stated that upwardly intergenerationally mobile persons orient their voting behaviour relatively more to the typical voting behaviour of their class of destination, than do downwardly intergenerationally mobile persons. The fact that this maximization hypothesis had to be rejected contradicts earlier empirical studies from the first generation (for an overview see Janowitz 1970),

but is in line with the more recent empirical results of studies from the third generation of stratification and politics (De Graaf & Ultee 1990; Weakliem 1992; Nieuwbeerta & De Graaf 1993).

The results discussed in this chapter also have implications for macro-explanations of variation in levels of class voting. We know that classes in a country consist of immobile and mobile members. Furthermore, our analyses have shown that mobile class members have a voting behaviour somewhere between the typical voting behaviour in their origin class and that in their destination class. This implies that in general, differences in voting behaviour between mobile class members will be less than that between immobile class members from the same classes. Thus, the more classes consist only of mobile members, the lower the level of class voting will be. Therefore, in general, we can conclude that intergenerational class mobility tends to weaken the "democratic class struggle" in a country.

However, the strength of the effect of intergenerational class mobility on the intensity of the class struggle in a society depends on the proportion of intergenerationally mobile and immobile members in each class. Thus, it is only when taking into account these composition effects that we can investigate adequately the extent to which variations in the strengths of the relationship between social class and voting behaviour in countries can be explained by variations in the patterns of intergenerational class mobility in these countries. We do this in Chapter 9 of this study. However, before testing this macro-level explanation, we pay attention to other effects of intergenerational class mobility on individual voting behaviour, i.e. the so-called "contextual" effects of class mobility.

8 Contextual Effects of Intergenerational Class Mobility on Voting Behaviour

8.1 Introduction[1]

When examining the relationship between intergenerational class mobility and individual voting behaviour, most researchers have adopted the micro-sociological perspective, i.e. they have investigated the effects of individual mobility on the voting behaviour of intergenerationally mobile persons (see for example: Barber 1970; Weakliem 1992; Nieuwbeerta & De Graaf 1992). Indeed, we also adopted this perspective in the previous chapter. A series of studies stretching from the first to the third generation of research on stratification and politics, however, suggests that intergenerational class mobility may also influence people's voting behaviour in a more indirect way, i.e. people may change their voting behaviour because they perceive intergenerational class mobility in their environment (Abramson & Books 1971; Thorburn 1979). It are these "contextual effects" of class mobility that we focus on in the present chapter.

Although, of course, such contextual effects can be assumed to affect the voting behaviour of both the intergenerationally mobile and the immobile, we restrict our investigations to the immobile class members. We do this, because for the immobile the contextual effects can be expected to be stronger than for the mobile. The contexts of mobile have changed over their life course and consequently they were subject to conflicting contextual effects. However, for immobile class members contextual effect are easier to detect. In this chapter we thus address the question: *What are the contextual effects of intergenerational class mobility in a country on the voting behaviour of intergenerationally immobile persons?*

The significance of the answer to this question lies not only in the way it helps us to understand individual voting behaviour. Contextual effects of class mobility might also have implications for understanding the political consequences of mobility on the political constellation in a country. It has been customary - as discussed in Chapter 1 - to concentrate on the mobile and to suppose that more (upward) mobility in a country leads to a lower level of class voting in that country. Such arguments generally assume composition effects. For example, if more people with manual backgrounds enter the service class, its mean voting behaviour will be more left-wing. However, a shift to less class voting might also

be strengthened by contextual effects. For instance, the influences of the mobile members on the immobile might cause a movement towards the left by immobile members of the nonmanual classes, and towards the right by immobile members of the manual classes. Therefore, before in the next chapter we examine the macro-effect of the class mobility patterns of countries on the levels of class voting in these countries, we examine the contextual effects of class mobility in this chapter.

The outline of this chapter is as follows. In Section 2 we present our hypotheses. In Section 3, we discuss the research methods. Our hypotheses are tested in Section 4. In this chapter's last section, Section 5, we discuss the results.

8.2 Hypotheses

Many scholars of the various generations of research on stratification and politics have formulated theories and hypotheses about the contextual effects of class mobility on voting behaviour (for example: Blau & Duncan 1967: 440; Abramson & Books 1971; Thorburn 1979; De Graaf & Ultee 1987). Building on this earlier research into the contextual effects of class mobility, we formulate hypotheses about the effects of two characteristics of mobility patterns on the voting behaviour of immobile class members. These characteristics are the *level of outflow mobility* from a specific class and the *level of inflow mobility* to a specific class.

To hypothesize on the effects of levels of outflow and inflow mobility in a certain class on the voting behaviour of the members of that class, we use - as in Chapter 7 - the instrumental and expressive theories of individual voting behaviour. According to the instrumental theory, voting behaviour is rational and self-interested: people vote according to their interests and therefore vote for the party whose policies will bring them the greatest utility now or in the future. In the expressive theory, voting is seen as a social act rather than an instrumental one. People associate with each other, and these associations are thought to provide an arena in which voting behaviour may be influenced. In general, such associations are made with people from the same class position, but sometimes - for example due to class mobility - they are not.

An hypothesis concerning the effects of the level of *inflow mobility* to a class on the voting behaviour of the stable members of that class, can best be deduced from the expressive theory. Because people in general associate with people occupying the same class position (Goldthorpe 1986), people's alignments to a certain party are usually stimulated by the influences of their class co-members, and all influences being in the same direction. However, when classes are

heterogeneous - due to the inflow of intergenerationally mobile people - we would expect the existing mobile class members to be influenced by the different voting behaviour of those entering the class. This is especially the case when the influx of newcomers with different political attitudes and behaviours is large (see also Lipset 1960).

The impact of newcomers may be expected to depend not only on the amount of inflow to a class, but also on the political character of that inflow. The more left-wing the voting behaviour of newly arrived class members, the more will the voting behaviour of the stable class members be left-wing. Thus, the effects of inflow mobility on the voting behaviour of immobile class members can be assumed to be dependent on two factors: the absolute level of inflow mobility to a class, and the political character of this inflow. Therefore, the following *inflow mobility hypothesis* can be formulated:

The higher the level of left-wing inflow mobility to a class, the more likely it is that the immobile members of that class will vote for a left-wing political party.

The effects of the level of *outflow mobility* from a class on the individual voting behaviour of immobile members of that class, can be deduced from the instrumental theory. We might expect that people are influenced by seeing others move out of their class. If people see many co-class members leaving their class, they can be expected to anticipate the possibility of mobility for themselves. Consequently, they might adjust their voting behaviour in line with possible future interests. It is through this mechanism that the level of outflow mobility from a class can be expected to have an effect on the voting behaviour of immobile members of that class.

Again, it should be noted that the effects of outflow mobility on the voting behaviour of immobile class members depend upon two factors. The first is the absolute level of outflow mobility, i.e. the percentage of class members leaving the class of their father. The higher the amount of outflow mobility from a class, the greater the likelihood that immobile class members will change their voting behaviour. The second factor, the political character of the outflow mobility - i.e. the interests and typical voting behaviour of the classes where the mobile flow to - can also be assumed to have an impact on the voting behaviour of those who are "left behind". The more left-wing the interests of those moving out become, the more those who stay in their class will anticipate these new interests and consequently vote in a more left-wing way. Summarizing these arguments leads us to the following *outflow mobility hypothesis*:

The higher the level of left-wing outflow mobility from a class, the more likely it is that the immobile members of that class will vote for a left-wing political party.

The implications of this hypothesis can best be illustrated by an example. For instance, immobile unskilled manual workers in a society with a high level of outflow from their class, might anticipate their own possible mobility. Because, by definition, those moving out go to classes with less left-wing interests, the immobile unskilled manual workers may adopt a less left-wing political party preference than they would have adopted in a society with little outflow from their class. This hypothesis is directly in line with Blau and Duncan's argument that "men who see little opportunity for improvement in their own economic status or, at least, that of their children, have greater inducements than those anticipating advancements in status to organize a union, to raise wages or to vote for a party that advocates higher taxes for the wealthy" (1967: 440).

However, the effect of the amount of outflow mobility from the unskilled manual class does not give sufficient information about the direction and the extent to which the immobile class members are influenced by level of outflow mobility. This depends on the classes to which the mobile members go. For example, in a country where most people from the unskilled manual class go to the skilled manual class (with its similar interests and voting behaviour), the voting behaviour of the immobile members of the unskilled manual class will hardly be affected by the level of outflow from their class. Conversely, in a country where most of those leaving the unskilled manual class go to the service class (which has less to gain from a more egalitarian society and displays, in general, a substantially less left-wing voting pattern), it is likely that the voting behaviour of the immobile members of the unskilled manual class will change substantially. Similarly, for members of the other social classes it can be hypothesized that the more they see their class members fall down the social ladder, the more they will anticipate their own downward mobility, and thus vote in a more left-wing way.

Before testing the formulated hypotheses, we should first note a conflicting argumentation that has also been suggested in the literature. Goldthorpe (1986: 342), for example, suggested such an hypothesis on the basis of social-psychological arguments. He argued that the more men of working class origins make their way into the service class, the more it would seem reasonable to suppose that a large majority of those who remain within the working class will "have a recognition of apparent 'openness'". Consequently, among those who - so to speak - were "left behind", some degree of discontentment or frustration might develop. Then, under the assumption that dissatisfaction and frustration for manual class members lead to a more left-wing voting behaviour, it can be expected that those who stay behind vote more left-wing than they would have done in a situation where only a limited number of people were upwardly mobile from their class. However, Goldthorpe himself has already suggested that such a

response would not be widespread due to the fact that for those who fail to achieve upward mobility, there still remain many alternatives that can serve to prevent any widespread sense of grievance. When testing our hypotheses this argumentation has to be kept in mind.

8.3 Modelling the contextual effects of class mobility

The main thrust of our contextual hypotheses is that the voting behaviour of individual stable members of a particular class in a certain country for a given year, can be explained by the inflow and outflow mobility in that class, country and year. Therefore, when testing the hypotheses we have to take account of the layered structure of our data, i.e. individuals are surveyed within years and within classes and countries. An appropriate way to test our hypotheses is to use a multi-level model containing three different levels: (1) an individual-level; (2) a year-level and (3) a class/country-level.

When modelling these effects two remarks are in order. First, the effects of inflow and outflow mobility depend both on the amount of inflow and outflow mobility and on the political character of that inflow and outflow. However, the amount of inflow and outflow mobility per se, do not give an indication of the direction in which the immobile class members will change their voting behaviour, i.e. whether they will become more right-wing or more left-wing. Therefore, in our models we take this into account by including interaction effects of the level of inflow and outflow mobility and the political character of that inflow and outflow.

A second consideration when testing the contextual effects of class mobility on the individual voting behaviour of intergenerationally immobile class members, is that their voting behaviour is not solely affected by differences in rates of inflow and outflow mobility, but are more determined by their material circumstances and interests. We take this into account in our modelling by allowing each class within each nation to have its own "natural" level of left-wing preferences. In this way we can test whether rates of outflow and inflow mobility can account for variations around this natural level.

Therefore, to test the hypotheses concerning the effects of levels of inflow and outflow mobility in a society on individual voting behaviour we use multi-level models that take these considerations into account. We use three models: one that tests the inflow mobility hypothesis, one that tests the outflow mobility hypothesis, and one that tests both these hypotheses simultaneously. In all three models, at the individual-level we estimate the voting behaviour of individual immobile class members as follows:

$$\log((\pi^*Left_{idjk})/(1-\pi^*Left_{idjk})) = \beta_{0djk} + \varepsilon_{idjk} \quad (1)$$

In this individual-level equation, the dependent variable is the log-odds for the immobile members (i) of each class (d) to vote for a left-wing political party rather than a right-wing party in each year (j) and country (k). The intercept in the individual-level equation, β_{0djk}, represents the mean log-odds of voting left-wing rather right-wing for stable class members in each of the distinguished classes and countries in each year. This intercept (which can vary from year to year, from class to class, and from nation to nation), serves as the dependent variable in the year-level equation.

To test the inflow mobility hypothesis we then use a model (Model A) in which the year-level equation is specified as follows:

$$\beta_{0djk} = \beta_{0d0k} + \beta_{1000}\,(Inflow_{djk}^*In\text{-}weight_{dk}) + \gamma_{0djk} \quad (2)$$

Similarly, to test the outflow mobility hypothesis we apply a model (Model B) with the following year-level equation:

$$\beta_{0djk} = \beta_{0d0k} + \beta_{2000}\,(Outflow_{djk}^*Out\text{-}weight_{dk}) + \gamma_{0djk} \quad (3)$$

In addition, to test the inflow and outflow hypotheses simultaneously, a third model (Model C) will be applied, whereby the year-level equation reads as follows:

$$\beta_{0djk} = \beta_{0d0k} + \beta_{1000}\,(Inflow_{djk}^*In\text{-}weight_{dk}) + \beta_{2000}\,(Outflow_{djk}^*Out\text{-}weight_{dk}) + \gamma_{0djk} \quad (4)$$

In these equations the variable $Inflow_{djk}$ represents the proportion of class d in year j and country k who were intergenerationally mobile (that is, who came from non-d origins). The variable $Outflow_{djk}$ represents the proportion of class d in year j and country k who were intergenerationally mobile (that is, who went to non-d destinations). The variables $In\text{-}weight_{dk}$ and $Out\text{-}weight_{dk}$ stand for the weight factors that take into account the political character of the outflow mobility to and inflow mobility from a class in a country.

In all three models, the combined explanatory variables are centred around their grand mean in each class and each nation. Therefore, β_{0d0k} represents the natural left-wing voting behaviour in the different classes in each country. To allow this natural level to vary from class to class and from nation to nation, β_{0d0k} is treated as random at the class/country-level:

$$\beta_{0d0k} = \beta_{0000} + \theta_{0d0k} \quad (5)$$

To calculate the political character of the inflow and outflow mobility, *In-weight*$_{dk}$ and *Out-weight*$_{dk}$, we use the average voting behaviour of the stable members of the origin classes in our dataset (cf. De Graaf et al. 1995). These weights must be kept constant over-time, since allowing them to vary each year could introduce circularity into the model. This is because in some years, quite independent of levels of mobility, there may be across-the-board increases in left-wing voting behaviour affecting the mobile and the stable alike. Weights which were allowed to vary each year might thus be correlated with the yearly variations in the dependent variable.

A numerical example may make clearer the procedure for calculating the political character of the inflow and outflow mobility. In calculating the political character of the inflow mobility to the service class in Britain in 1964, we first take the actual proportions of the service class in Britain in 1964 who moved from the other six classes. Of these, 20 per cent originated in the unskilled manual class. This figure is then weighted by 0.61 (the proportion of the stable members of the unskilled manual class who had a left-wing voting behaviour in Britain in the combined British dataset - as reported in Table 7.1 in the previous chapter). Similarly, the 4 per cent who were mobile from the agricultural worker class is weighted by 0.41. The weighted inflow to the service class in Britain in 1964 thus becomes (20*61 + 28*61 + 4*41 + 7*33 + 11*11 + 4*8)/100, or 34.8. The calculation of the left-wing inflow mobility for other classes and countries proceeds in an analogous manner. In calculating the left-wing outflow mobility we follow the same procedure, except that here we weight by the proportion and the voting behaviour of the destination classes.

8.4 Results

While questions at the individual-level in principle can be addressed using a single dataset from a single country and year, in the case of contextual questions, the higher the number of contexts the better. For this reason, we employ our individual-level survey dataset containing data from sixteen countries, seven classes and many years over the period 1956-1990. Because of our research questions, we restrict the analyses to intergenerationally immobile male members of the classes aged eighteen years or older, leaving us with a total of 20,619 respondents. By analysing data on so many contexts and so many individuals we aim to give hypotheses on the contextual effects of class mobility a higher chance of corroboration in empirical tests, than has been the case in earlier studies.

Table 8.1. Percentages outflow mobility in EGP classes in sixteen countries, 1956-1990

		Service class	Routine nonmanual	Petty bourg.	Farmers	Skilled manual	Unskilled manual	Agric. labourers
Australia	1961-70	49.6	83.9	90.4	61.5	60.2	73.1	89.3
	1971-80	51.4	75.2	77.8	72.6	71.3	77.1	96.4
	1981-90	41.1	82.7	91.3	77.1	74.4	78.4	94.1
Austria	1971-80	41.9	67.9	78.4	54.2	64.1	65.3	78.6
	1981-90	41.5	78.4	80.0	61.0	66.0	67.0	95.0
Belgium	1971-80	48.3	37.4	59.6	53.1	69.0	67.3	-
Britain	1961-70	49.7	81.6	83.4	70.4	56.3	64.0	84.2
	1971-80	36.9	86.9	82.3	72.7	59.5	66.2	76.0
	1981-90	39.3	82.6	77.1	74.1	63.7	68.0	89.5
Canada	1981-90	39.8	81.0	-	57.7	70.1	72.6	94.4
Denmark	1971-80	49.2	67.3	79.8	58.2	61.5	56.2	-
Finland	1971-80	48.2	92.9	86.8	62.5	47.3	75.4	81.6
France	1971-80	34.4	78.8	77.7	52.4	51.3	83.6	87.5
Germany	1961-70	41.9	83.7	86.9	68.3	48.4	63.2	89.8
	1971-80	41.3	78.0	83.6	77.2	53.8	81.0	88.3
	1981-90	37.1	85.4	77.5	81.1	48.7	77.7	93.1

Table 8.1. (Continued)

		Service class	Routine nonmanual	Petty bourg.	Farmers	Skilled manual	Unskilled manual	Agric. labourers
Ireland	1981-90	46.4	97.2	77.8	47.6	67.7	51.5	84.1
Italy	1961-70	60.0	57.8	68.6	60.5	48.1	75.6	67.5
	1971-80	57.9	67.4	63.0	78.1	66.0	83.3	85.7
	1981-90	57.6	63.2	63.1	78.5	56.7	73.5	76.8
Netherlands	1961-70	37.0	71.9	70.7	62.6	49.6	64.1	84.7
	1971-80	38.3	69.4	80.1	64.6	64.0	79.3	86.7
	1981-90	39.0	75.7	86.7	74.0	65.9	75.7	91.1
Norway	1961-70	36.8	100.0	88.7	66.7	55.6	53.1	100.0
	1971-80	38.3	84.1	88.9	62.8	-	71.9	88.9
	1981-90	36.1	89.0	83.2	70.8	-	21.9	95.0
Sweden	1971-80	32.4	79.3	76.2	73.4	64.6	71.4	100.0
	1981-90	53.7	95.5	93.1	74.4	68.6	78.3	100.0
Switzerland	1971-80	36.5	80.7	74.9	60.4	62.8	77.0	100.0
United States	1956-60	38.5	83.0	79.6	71.6	66.4	61.9	30.0
	1961-70	44.8	83.5	78.0	79.9	68.8	68.3	76.7
	1971-80	48.4	87.5	91.6	82.9	63.1	68.3	90.6
	1981-90	47.2	78.1	89.9	80.8	69.8	68.6	93.7

Table 8.2. Percentages inflow mobility in EGP classes in sixteen countries, 1956-1990

		Service class	Routine nonmanual	Petty bourg.	Farmers	Skilled manual	Unskilled manual	Agric. labourers
Australia	1961-70	64.5	90.4	81.8	33.1	62.1	72.2	84.3
	1971-80	71.3	81.8	82.8	36.2	68.8	72.6	93.8
	1981-90	61.4	88.4	92.8	31.9	67.4	72.6	90.7
Austria	1971-80	70.2	75.0	61.9	7.7	68.6	73.2	75.0
	1981-90	70.6	91.3	0.0	14.0	61.4	65.6	91.7
Belgium	1971-80	66.7	62.0	53.1	21.1	70.5	35.8	-
Britain	1961-70	72.4	91.3	78.3	31.0	51.3	59.3	45.4
	1971-80	68.9	90.5	78.1	33.6	49.5	64.0	54.2
	1981-90	65.6	87.2	74.3	33.6	52.4	64.2	65.3
Canada	1981-90	66.8	85.3	100.0	10.6	59.7	73.3	90.5
Denmark	1971-80	75.9	81.4	66.5	14.9	71.1	59.8	-
Finland	1971-80	74.1	90.0	85.8	15.1	64.4	82.1	72.0
France	1971-80	68.1	85.9	66.4	11.8	58.4	72.9	70.0
Germany	1961-70	68.5	82.8	63.6	3.2	55.6	61.9	89.7
	1971-80	67.4	87.1	68.9	15.3	53.1	77.9	65.4
	1981-90	65.0	92.5	65.8	7.6	46.7	76.3	78.2

Table 8.2. (Continued)

		Service class	Routine nonmanual	Petty bourg.	Farmers	Skilled manual	Unskilled manual	Agric. labourers
Ireland	1981-90	70.1	96.4	89.0	8.1	68.5	51.8	71.4
Italy	1961-70	88.9	78.0	65.5	67.0	81.0	69.6	12.6
	1971-80	84.3	82.1	78.5	25.0	60.6	84.1	82.1
	1981-90	74.0	80.8	61.7	16.0	65.6	72.4	25.0
Netherlands	1961-70	55.3	84.6	50.7	10.3	64.6	64.7	65.4
	1971-80	65.6	85.8	49.8	13.7	70.0	70.5	72.6
	1981-90	64.2	84.0	70.4	17.3	60.8	73.0	71.4
Norway	1961-70	73.3	00.0	75.8	15.4	63.6	55.1	100.0
	1971-80	73.5	86.8	81.0	30.9	83.0	66.4	80.0
	1981-90	71.7	89.8	69.3	43.1	71.9	79.4	70.5
Sweden	1971-80	75.8	75.0	82.8	16.7	56.3	87.1	100.0
	1981-90	69.6	96.6	91.3	23.1	66.7	76.2	100.0
Switzerland	1971-80	70.0	88.8	66.9	9.3	66.2	67.7	100.0
United States	1956-60	70.3	94.1	78.4	6.5	68.5	70.1	66.7
	1961-70	72.5	91.4	85.3	14.6	69.6	73.0	79.0
	1971-80	65.5	93.0	85.1	11.0	64.4	75.5	80.3
	1981-90	59.4	88.0	87.1	20.8	67.6	72.6	77.5

Describing the levels of inflow and outflow mobility

Before testing the contextual hypothesis about the effects of inflow and outflow mobility on the voting behaviour of immobile class members, we first describe the levels of outflow and inflow mobility in the countries. In Table 8.1 for all countries for the periods 1956-1960, 1961-1970, 1971-1980, and 1981-1990 the percentage of outflow mobility is given for each of the seven EGP classes. We find that in general the manual classes have higher outflow rates than other classes. The service class has the lowest. It should be noted that differences between the classes are larger than differences across countries or periods.

In Table 8.2 the percentage of inflow mobility is given. The farmers form the class with the lowest level of inflow mobility. The service and routine nonmanual classes have relatively high levels of inflow mobility. This is because these two classes have grown substantially during the last decades. For this to have occurred members of the other classes had to be recruited. Furthermore, differences from country to country in inflow rates are substantial.

Testing the hypotheses

We now test the formulated contextual hypotheses. The first hypothesis, the outflow mobility hypothesis states that the more "left-wing outflow" from a class there is, the more likely it is that stable members of that class will vote for a left-wing political party. The second hypothesis, the inflow mobility hypothesis, implies that the more left-wing inflow mobility to a class there is, the more likely it is that stable members of that class will vote left-wing.

We test these hypotheses in four different ways. To begin with we test the hypotheses for all classes simultaneously. Next, we test them for each class separately. Subsequently we test the hypotheses focusing on the effects of "pure" inflow and outflow mobility, i.e. not controlling for the political character of the inflow and the outflow mobility. Fourth, we test the hypotheses examining the effects of "extreme" inflow and outflow mobility on the voting behaviour of the immobile members of two classes that have very distinct interests, the unskilled manual class and the service class.

Test of hypotheses: all classes simultaneously

To test the hypotheses for all classes simultaneously, the three multi-level models are fitted on 20,619 respondents within 599 years within 107 country/class

combinations.[2] Model A tests the inflow mobility hypothesis, by including the interaction effect *Inflow*In-weight* as a contextual explanatory variable. The outflow mobility hypothesis is tested by fitting Model B, which includes the interaction effect *Outflow*Out-weight*. In Model C the *Inflow*In-weight* and the *Outflow*Out-weight* variables are included simultaneously. When the hypotheses hold, we expect the parameter estimates for these variables to be positive and significantly different from zero. The parameter estimates for the three fitted multi-level models are presented in Table 8.3.

The estimates of the parameters in the multi-level analysis in Models A and C, indicating the effect of left-wing inflow mobility are 0.004 and 0.005 respectively. These estimates are in the expected direction but clearly not statistically significant. We therefore can not accept the hypothesis that the more left-wing inflow mobility there is to a class, the more likely it is that immobile members will have a left-wing voting behaviour.

In Models B and C estimates of the effects of left-wing outflow mobility take the values -0.001 and -0.002 respectively. These are not in the expected direction, but are also not statistically significant. Therefore, we can not accept the outflow mobility hypothesis that the more left-wing outflow mobility there is from a class, the more likely it is that immobile members of that class will have a left-wing voting behaviour.

Test of hypotheses: per class

It might be, however, that while we must reject the inflow and outflow hypotheses for all classes simultaneously, they nevertheless hold for stable members of some particular classes. For this reason we fit our models for the stable members of each specific class separately. To test our hypotheses for each class separately, multi-level models are fitted, each analysing only those respondents who currently are members of a specific class. As in the test for all classes simultaneously, we fit three models: Model A including the interaction effect *Inflow*In-weight*, Model B including the interaction effect *Outflow*Out-weight*, and Model C including both these variables. Again, if the hypotheses hold, significant positive parameter estimates are to be expected. In Table 8.4 only the pertinent parameter estimates of the fitted multi-level models are presented. All the other coefficients - the intercept and the random coefficients - are not reported.

The results of these tests are largely negative. The figures in Table 8.4 indicate that none of the estimated parameters are statistically significant. Furthermore, ten out of the twenty-eight estimated parameters have a negative value, i.e. these

Table 8.3. Parameter estimates of multi-level models: the effects of inflow and outflow mobility on the left-wing voting behaviour of immobile class members

	Model A		Model B		Model C	
	Parameter	s.e.	Parameter	s.e	Parameter	s.e.
Fixed parameters						
INDIVIDUAL-LEVEL						
Intercept	-0.458	0.100	-0.457	0.100	-0.458	0.100
YEAR-LEVEL						
Inflow * in-weight	0.004	0.006	-	-	0.005	0.006
Outflow * out-weight	-	-	-0.001	0.007	-0.002	0.007
Random parameters						
COUNTRY/CLASS-LEVEL						
Intercept	0.902	0.143	0.902	0.143	0.902	0.143
YEAR-LEVEL						
Intercept	0.093	0.015	0.094	0.015	0.093	0.015
INDIVIDUAL-LEVEL						
Intercept	1	-	1	-	1	-

Notes: * $p < 0.05$.
The analyses were based on 20,619 individuals within 599 years within 107 country/classes

Table 8.4. Parameter estimates of multi-level models: the effects of inflow and outflow mobility on the left-wing voting behaviour of immobile class members, per class

	Model A		Model B		Model C	
	Parameter	s.e.	Parameter	s.e.	Parameter	s.e.
Service class (N = 5910)						
Inflow * in-weight	0.017	0.021	-	-	0.017	0.021
Outflow * out-weight	-	-	-0.006	0.020	-0.007	0.020
Routine nonmanual (N = 913)						
Inflow * in-weight	0.033	0.021	-	-	0.033	0.023
Outflow * out-weight	-	-	0.015	0.026	-0.000	0.028
Petty bourgeoisie (N = 1062)						
Inflow * in-weight	-0.028	0.018	-	-	-0.029	0.019
Outflow * out-weight	-	-	-0.007	0.026	0.003	0.027
Farmers (N = 3098)						
Inflow * in-weight	0.017	0.019	-	-	0.018	0.019
Outflow * out-weight	-	-	0.010	0.021	0.012	0.020
Skilled manual (N = 6144)						
Inflow * in-weight	0.010	0.016	-	-	0.008	0.017
Outflow * out-weight	-	-	0.014	0.021	0.012	0.022
Unskilled manual (N = 3099)						
Inflow * in-weight	0.003	0.015	-	-	0.011	0.016
Outflow * out-weight	-	-	-0.035	0.020	-0.039	0.021
Agricultural labourers (N = 393)						
Inflow * in-weight	-0.017	0.020	-	-	0.022	0.020
Outflow * out-weight	-	-	0.022	0.029	0.031	0.030

Note: * $p < 0.05$.

Table 8.5. Parameter estimates of multi-level models: the effects of the levels of "pure" inflow and outflow mobility on the left-wing voting behaviour of immobile class members, per class

	Model D		Model E		Model F	
	Parameter	s.e.	Parameter	s.e.	Parameter	s.e.
Service class (N = 5910)						
Inflow	0.018	0.011	-	-	0.019	0.012
Outflow	-	-	-0.004	0.010	-0.007	0.010
Routine nonmanual (N = 913)						
Inflow	0.008	0.013	-	-	0.010	0.025
Outflow	-	-	0.003	0.008	-0.002	0.016
Petty bourgeoisie (N = 1062)						
Inflow	-0.010	0.009	-	-	0.010	0.010
Outflow	-	-	0.004	0.013	-0.001	0.014
Farmers (N = 3098)						
Inflow	0.009	0.009	-	-	0.008	0.009
Outflow	-	-	0.009	0.011	0.007	0.011
Skilled manual (N = 6144)						
Inflow	0.001	0.009	-	-	0.004	0.010
Outflow	-	-	-0.008	0.008	-0.009	0.008
Unskilled manual (N = 3099)						
Inflow	-0.001	0.008	-	-	0.005	0.009
Outflow	-	-	-0.009	0.009	-0.012	0.011
Agricultural labourers (N = 393)						
Inflow	0.003	0.006	-	-	0.003	0.008
Outflow	-	-	0.007	0.016	0.002	0.023

Note: * $p < 0.05$.

effects are in the unexpected direction. This means that even when testing the hypotheses for all classes separately, both the inflow and outflow hypotheses have to be rejected.

Test of hypotheses: effects of "pure" inflow and outflow mobility

Before drawing conclusions with respect to the inflow and outflow hypotheses, an extra test is in order. It might be argued that the inclusion of interaction effects between the amount of inflow and outflow mobility and the political character of that mobility obscures the main effect of the level of inflow and outflow mobility. Therefore, as a check we do our analyses including only the pure mobility level variables in models A, B and C. This results in models D, E and F, where the *In-weight* and *Out-weight* variables are left out.

When making predictions about the effect of the pure levels of inflow and outflow on the voting behaviour of immobile members of specific classes, assumptions must be made about the political character of that inflow and outflow. For some classes it is easy to come up with predictions, because the assumptions are straightforward. For example, it can be assumed that all people who move out of the skilled and unskilled manual classes go to classes with more right-wing interests and political culture than are found among the stable members of the manual classes. Thus, for members of the unskilled and skilled manual classes, it can be expected that the more outflow from their class there is, the more right-wing they will be. Furthermore, it can be assumed that those who move into the manual classes also have more right-wing voting behaviour than the stable members of these classes. Therefore, it can be expected that the more inflow mobility there is to the manual classes, the less likely the immobile members of these classes will be to vote for a left-wing party.

In addition, for members of the farming and petty bourgeoisie classes it can be assumed that most outflow goes to more left-wing classes, while most inflow comes from more left-wing classes. In this way it can be predicted that the more inflow mobility to these classes, the more likely members of these classes are to vote left-wing. For the other classes - the service class, the routine nonmanual class and the agricultural labourers - making predictions about the effects of the amount of inflow and outflow mobility is less straightforward. The political character of that mobility depends too much on the patterns of intergenerational mobility in a country in a certain year to be able to predict the contextual effects of inflow and outflow mobility for these classes.

To test our predictions about the effects of pure inflow and outflow mobility on the voting behaviour of stable class members, we follow the same procedure as

before. For each class separately, three multi-level models are fitted, each analysing only those respondents who are members of a specific class. Model D includes the *Inflow* variable, model E the *Outflow* variable, and model F includes both these variables. In Table 8.5 the pertinent parameter estimates are presented. Again the results of these tests are negative. None of the estimated parameters representing the effects of levels of inflow and outflow differ significantly from zero. Thus, in none of our analyses so far in this chapter, did we find a single indication of a contextual effect of inflow and outflow mobility in a country on the voting behaviour of immobile class members. This gives us strong grounds on which to reject both hypotheses outright.

Tests of hypotheses: effects of "extreme" inflow and outflow mobility

Although the results presented above seem convincing, we would like to perform one further analysis. When the scholars of the first generation hinted at the existence of contextual effects of class mobility, they had no detailed class scheme available or even in mind. Their claims about the existence of contextual effects referred mainly to simple ideas of inflow and outflow mobility from the highest to the lowest classes (see for example: Abramson & Books 1971, and Parkin 1971) To do justice to these claims, we therefore do a last test where we focus on the effects of inflow and outflow mobility on the voting behaviour of members of two classes that are "extreme" with respect to their interests, the service class and the unskilled manual class. We carry out separate analyses for both of these classes, and focus on the effects of inflow and outflow mobility from one of these classes to the other. Of course, the idea behind these analyses is that, if contextual effects do exist, these can be expected to be detected most easily when investigating the effects of this "extreme" inflow and outflow mobility.

On the basis of our above formulated hypotheses and earlier studies on this topic, we can expect the level of *inflow mobility* from the unskilled manual class into the service class to have a significant effect on the voting behaviour of immobile class members of the service class. The more former members of the unskilled manual class enter the service class, the more the stable members of the service class will be influenced by them, and consequently the more they will vote for a left-wing rather than a right-wing political party. Similarly, we expect the level of inflow mobility from the service class into the unskilled manual class to have a substantial impact on the voting behaviour of the stable members of the unskilled manual class. The more service class members move into the manual class, the more the members of that manual class can be expected to vote for a

right-wing party.

In addition, we can formulate hypotheses concerning the effects of levels of *outflow mobility*. If stable members of the service class see many of their class members "fall" to the unskilled manual class, it can be expected that the stable service class members anticipate their own downward mobility and thus become more likely to vote for a left-wing party. Thus, the more outflow mobility from the service class into the unskilled manual class, the more the stable members will vote for a left-wing party. Again, an analogous idea can be applied to the voting behaviour of the stable members of the unskilled manual class. In this case, it can be expected that the more people from the unskilled manual class climb to the service class, the more those who remain in the unskilled manual class will anticipate their own climb, and the more they will vote right-wing.

To test the hypotheses of "extreme" inflow and outflow mobility, we first do a separate analysis on data from stable members of the *service class*. We use the same models and data as earlier in this chapter, but as our explanatory *Inflow* variable we take of the total number of people currently in the service class the percentage that arrived into the service class from the unskilled manual class. Furthermore, we take the percentage of people who moved into the unskilled manual class, based on the total number of people that were originally members of the service class, as the *Outflow* variable. Again we fit three models, one including as an explanatory variable only the *Inflow* variable, a second only the *Outflow* variable, and a third both variables. The results of fitting these models to our data, however, show statistically insignificant parameter estimates for these explanatory variables. The parameter of the *Inflow* variable has the value of -0.001 (s.e. 0.014) when it is solely included, and 0.002 (s.e. 0.014) when it is simultaneously included. In addition, the *Outflow* parameters yield the value -0.012 (s.e. 0.019) and -0.013 (s.e. 0.020), respectively.

A separate analysis, using the same model and data, but now concerning the voting behaviour of the stable members of the *unskilled manual class* also yields statistically insignificant parameter estimates. As our *Inflow* variable we take the percentage of the total number of people currently in the skilled manual class, that arrived into the skilled manual class from the service class. As our *Outflow* variable we take the percentage of people who moved into the service class, based on the total number of people who were originally members of the unskilled manual class. The parameter estimate of the *Inflow* variable has the value 0.002 (s.e. 0.012) when it is solely included, and -0.002 (s.e. 0.014) when it is simultaneously included. The *Outflow* parameter estimates yield the values -0.003 (s.e. 0.024) and 0.011 (s.e. 0.022) respectively.

Thus, also doing these analyses on "extreme" inflow and outflow mobility, we

do not find any corroboration of the hypotheses concerning the contextual effects of inflow and outflow class mobility on the voting behaviour of immobile class members.

8.5 Conclusions

In studies of the first until the third generation of research on stratification and politics many scholars have suggested that intergenerational class mobility has contextual effects on the voting behaviour of stable class members. However, such arguments have been made without the support of empirical evidence. In this chapter we used the literature to formulate two hypotheses about the contextual effects of class mobility on the voting behaviour of intergenerationally immobile class members. These hypotheses pertain to the effects of both inflow mobility and outflow mobility. We aimed to make progress on earlier studies of research on stratification and politics by giving the hypotheses the highest possible chance to be corroborated. First, we tested these hypotheses by analysing survey data from a very large number of contexts, i.e. data of seven classes from sixteen countries over the period 1956 to 1990. Second, we used multi-level models which are especially designed to investigate contextual effects. Despite these efforts the results were negative. The analyses showed *no significant contextual effect of either the level of intergenerational inflow or the level of outflow class mobility in a country on the voting behaviour of intergenerationally immobile persons.* These negative results are remarkable when regarding the large number of studies that have suggested the contextual effects of intergenerational class mobility on politics.

An explanation for these negative results might be that there is a difference between perceived and actual levels of mobility in a class. The perceived level of mobility may largely be influenced by local examples that do not necessarily represent the national mobility pattern. This is an important issue, since we might expect class members' perceptions of potential mobility to have a larger influence on their political party preferences. Another explanation, linked to the first, might be that perceived mobility chances may not be based upon long range mobility. In our analyses we only investigate inter-class mobility. However, people also change in social positions within classes, for example people change in their income position. Thus, it might be that if class members think about their chances of becoming upwardly or downwardly mobile, they think more in terms of intra-class mobility than inter-class mobility. If this is the case, even our detailed EGP class is still to crude, because it does not allow us to pick up the contextual effects of intra-class income mobility. Concluding, a rephrasing of the hypotheses

in terms of the contextual effects of local short-range mobility on individual voting behaviour, seems worthwhile.

Contextual effects of class mobility have often been implicitly or explicitly assumed when discussing the macro-level political consequences of intergenerational class mobility. In this chapter we followed the research strategy that before focusing on the macro-level effects of class mobility, the micro-level assumptions concerning the individual or contextual effects of class mobility on individual voting behaviour were empirically tested. The consequence of this strategy and the negative results in this chapter is that in the next chapter where we examine the extent to which variations in the levels of class voting of countries can be explained by varying patterns of class mobility of these countries, we do not have to reckon with contextual effects of class mobility.

9 Macro-Effects of Intergenerational Class Mobility on Class Voting

9.1 Introduction[1]

In this chapter we want to address the final research question of this study. It concerns the macro-effects of intergenerational class mobility on levels of class voting in a country. The importance of class mobility for a country's level of class voting has already been touched upon by Marx. Of course, when Marx tried to explain the absence of a class struggle in the United States, the right to vote was restricted to persons of certain classes in the United States. Nevertheless, Marx (1926 [1852]: 33) argued that in the United States "classes are not yet fixed, but in continual flux, with a persistent interchange of their elements". He thus assumed that high rates of class mobility within a country would undermine class formation. Sorokin has also argued that class mobility facilitates atomization and diffusion of solidarity and antagonisms between its inhabitants (1959 [1927]: 538). Perhaps the clearest statement of the importance of mobility for a country's class voting is found in Sombart's attempt to account for the absence of socialism in the United States. Sombart in effect suggested that although the United States has a lower level of class struggle than Britain, this is largely due to extreme mobility. He argues that if the mobility pattern of the United States showed as little flux as that in Britain, then the intensity of class struggle in the United States would be as high as that of Britain (Sombart 1976 [1906]).

Ideas on the effects of intergenerational mobility on a country's level of class voting also have been widespread in the first generation of research on stratification and politics. For example, Campbell et al. (1960), Lipset & Zetterberg (1956) and Alford (1963) initially suggested that lower levels of class voting might be associated with higher levels of class mobility. However, since leading intergenerational mobility research at that time indicated that the overall pattern of class mobility was much the same in the industrial societies of various Western nations (Lipset & Bendix 1959), these scholars had to reject this hypothesis. More recent mobility research, however, does show substantial differences between countries in the percentages of people moving from one class to another compared to their parents, i.e. countries differ in their *absolute* patterns of mobility (Jones 1969; Hazelrigg 1974; Ganzeboom et al. 1989; Erikson & Goldthorpe 1992).

Ideas on the effects of class mobility on class voting have been advanced not only to account for differences between countries in levels of class voting, but also to explain the declining importance of class within many contemporary societies. Increasing rates of class mobility have, it is claimed, tended to weaken the cohesion of classes and have been one of the factors in class dealignment (Lipset 1960; Clark & Lipset 1991; Hout et al. 1994). Thus, as already discussed in Chapter 4, several scholars have suggested that variation in intergenerational class mobility patterns might help to explain both cross-national and over-time variation in levels of class voting (Alford 1963; Campbell et al. 1960; Lipset 1983; De Graaf & Ultee 1987; Dahrendorf 1959; Abramson 1972).

Tests of the thesis that variation in intergenerational mobility rates might result in variation in levels of class voting, have predominantly been done by scholars of the first generation of research on stratification and politics. In these studies the rates of intergenerational manual/nonmanual class mobility in countries and the levels of class voting in these countries were compared, mainly by visual inspection of tables. In the second and third generation, tests of the class mobility explanation for variation in class voting had a low priority on the research agenda. This, despite the fact that the availability of detailed measurement procedures, a large amount of high quality data, and appropriate techniques of analysis provided the third generation with a good opportunity to test this explanation.

In this chapter we pay attention to the macro-level effects of intergenerational class mobility on class voting, by addressing the following research questions: *To what extent can differences across democratic industrialized countries in levels of class voting be explained by cross-country differences in patterns of intergenerational class mobility?* And further: *To what extent can changes over-time in levels of class voting within these countries be explained by changes within these countries in patterns of intergenerational class mobility?*

When we address these questions, we follow our suggestions in Chapter 4 that it is essential to take into account the macro-micro-macro link between intergenerational class mobility and class voting. We assume that the link between the mobility patterns in countries and their levels of class voting is an indirect one. First, auxiliary assumptions at the micro-level are necessary. These concern the voting behaviour of the various types of individual mobile and immobile class members. Second, assumptions linking the micro- and the macro-level are required. These assumptions concern the number of people in a country that can be classified according to their current and former class, i.e. the mobility pattern, and how this pattern differs between countries and across periods. When taking both these micro-level and micro-macro-level assumptions into account, we obtain a macro-prediction on the relationship between the patterns of intergenerational

class mobility in countries and the levels of class voting in these countries.

Furthermore, when addressing the research questions in this chapter, some of the improvements of third generation studies are used. First, we apply a detailed class scheme, i.e. the seven class version of the EGP class scheme. Second, we use a large and qualitatively good dataset. When investigating the macro-effects of class mobility on class voting, we analyse the individual dataset used in the earlier chapters, pertaining to individual respondents from sixteen countries from various years in the period 1956-1990. In the present chapter the analyses are restricted to male respondents, aged eighteen years or older who had a valid score on their voting behaviour and on their origin and destination class. This leaves us with a total of 62,946 respondents. Third, when analysing the macro-level effects of class mobility on class voting, and to deal with the macro-micro-macro link between the patterns of class mobility in countries and the levels of class voting in these countries, we use the method of counterfactual analysis. We explain this method later in this chapter. This method has been applied before in studies of social stratification (Blau & Duncan 1967; Erikson 1990; Erikson & Goldthorpe 1992). In fact, in this chapter we suggest an improvement on this method, i.e. we analyse the outcomes of counterfactual simulations, using models that provide us with parameters directly answering our research questions.

In Section 2 we go into the macro-micro-macro link between intergenerational class mobility and class voting. Furthermore, we illustrate the method of counterfactual analysis that we apply to deal with that link, by presenting an example for two countries. In Section 3 we discuss how we test the hypotheses concerning the macro-effect of class mobility by modelling the outcomes of our counterfactual analysis. Section 4 examines the extent to which differences in class voting between countries can be explained by differences in mobility patterns in these countries, and the extent to which changes in class voting within countries can be explained by changes in mobility patterns within these countries. The results are discussed in Section 5.

9.2 Macro-micro-macro link

Our macro-level question is essentially about the link between a country's mobility pattern and its level of class voting. The most obvious way to examine this link would be to use a method that relates these two macro-variables directly. For example, we could examine whether a high mobility rate in a country is related to a lower level of class voting. However, in this chapter we do not deal with the relationship between class mobility and class voting by simply linking two macro-level variables. In fact, we have already done this in Chapter 4. In that

Table 9.1. Observed voting pattern and mobility pattern in the United States, in the period 1961-1970. (Percentage of left-wing voters (L) by origin and destination class, and percentage of inflow mobility (I) from the origin classes into each destination class)

United States	**Destination class**													
	Unskilled manual		Skilled manual		Agric. Labourer		Routine nonmanual		Service class		Petty bourg.		Farmers	
	L	I	L	I	L	I	L	I	L	I	L	I	L	I
Origin class														
Unskilled manual	73	27	62	23	0	0	57	23	60	16	57	13	33	4
Skilled manual	56	18	68	29	33	14	53	23	55	21	64	19	86	4
Agric. labourers	90	2	50	3	50	24	0	0	67	0	33	1	67	1
Routine nonmanual	77	4	60	3	0	0	67	10	55	11	50	4	0	0
Service class	53	7	68	7	0	0	52	11	58	28	40	14	50	4
Petty bourgeoisie	76	4	56	5	0	0	61	8	57	8	44	15	25	3
Farmers	69	37	57	30	66	62	70	25	55	15	59	35	54	84
Total	67	100	62	100	57	100	60	100	57	100	54	100	54	100
Class distribution (Total = 100%)	23		22		2		10		26		10		8	
Log-odds-ratio	.0		0.22		0.43		0.30		0.43		0.55		0.55	

chapter we argued that the macro link is more complex than appears at first sight. We noticed that the relationship at the macro-level is the result of a micro-level relationship between a person's class position and his voting behaviour, and a macro-micro bridge-assumption that states how many persons are mobile between the specific classes, i.e. the patterns of intergenerational mobility of a country.

To be able to deal with the complex relationship between a country's mobility pattern and its level of class voting, we apply the same strategy as in Chapter 5 and examine this relationship by means of some simulations, i.e. we apply the method of counterfactual analysis (see also: Blau and Duncan 1967: 159; Heath et al. 1985: 36; Erikson 1990; Erikson & Goldthorpe 1992: 210). In doing so, we answer three questions. The first is: How large are the observed differences in class voting between countries? The second is: What would the difference in class voting between these countries be, assuming each had the same mobility pattern? And the third is: To what extent would the differences in class voting between these countries in this counterfactual situation be smaller than the observed differences in class voting between these countries? Our responses to these questions clearly provide answers to the main question addressed in the present chapter. When the predicted differences in class voting under the counterfactual assumption that countries have the same mobility pattern, are smaller than the observed differences in class voting, we can conclude that mobility explains at least to some extent differences in class voting. Or in other words: the smaller the predicted differences in class voting between the countries, when each country is assumed to have the same mobility pattern, the more the observed differences can be explained by differences in mobility patterns. Thus, the method of counterfactual analysis enables us to obtain an answer to our research question, and is capable of dealing with the macro-micro-macro link between a country's class mobility pattern and its level of class voting.

Our application of the method of counterfactual analysis can best be illustrated with an example. Sticking to Sombart's suggestion of comparing the United States and Britain, in this example we investigate the extent to which the observed differences in class voting between Britain and the United States over the period 1961-1970, can be explained by differences in the mobility patterns between these countries. In Table 9.1 for the United States and in Table 9.2 for Britain, the observed voting and mobility patterns of these countries are presented (for the seven origin and destination EGP classes). The voting figures (L) represent the probability for each class member of voting for a left-wing political party rather than a right-wing party.

The mobility patterns given comprise two components. As a first component the inflow mobility rates (I) in each of the destination classes are given. These are the percentages of people who come from each specific origin class into that

Table 9.2. Observed voting pattern and mobility pattern in Britain, in the period 1961-1970. (Percentage of left-wing voters (L) by origin and destination class, and percentage of inflow mobility (I) from the origin classes into each destination class)

Britain	**Destination class**													
	Unskilled manual		Skilled manual		Agric. Labourer		Routine nonmanual		Service class		Petty bourg.		Farmers	
	L	I	L	I	L	I	L	I	L	I	L	I	L	I
Origin class														
Unskilled manual	68	40	73	31	83	12	43	23	33	20	23	20	0	4
Skilled manual	68	31	74	49	0	6	51	34	34	29	36	24	0	9
Agric. labourers	69	8	66	7	57	59	42	4	20	2	49	6	0	4
Routine nonmanual	53	3	38	2	0	0	43	10	23	7	28	6	0	0
Service class	58	7	37	4	0	6	25	18	16	27	5	13	0	9
Petty bourgeoisie	42	7	39	5	0	0	20	8	6	11	11	21	0	4
Farmers	58	4	47	3	46	18	18	3	17	4	33	10	9	70
Total	65	100	68	100	56	100	40	100	24	100	24	100	14	100
Class distribution (Total = 100%)	26		32		2		9		22		7		2	
Log-odds-ratio	0		-0.13		0.38		1.02		1.77		1.77		2.43	

particular destination class. As a second component the percentages that represent the class distribution of the EGP destination classes are given.

On the basis of voting patterns and inflow mobility rates given in Tables 9.1 and 9.2, the voting behaviour of each EGP class can be calculated. The voting behaviour of an entire class is, of course, a weighted average of the voting behaviour of the various class members who originated from different origin classes. Thus, from the figures in the first two columns in Table 9.2, we can calculate that of the whole unskilled manual class in Britain in the period 1961-1970, (68*40 + 68*31 + 69*8 + 53*3 + 58*7 + 42*7 + 58*4)/100, or 65 per cent, voted for a left-wing party. The percentages of left-wing voters of all total destination classes are presented in the total rows of Tables 9.1 and 9.2.[2]

Using these percentages of left-wing voters - as discussed in Chapters 2 and 6 - log-odds-ratios measuring the differences in voting behaviour between the EGP classes can be calculated. For example, the log-odds-ratio measuring the difference in voting behaviour between the most left-wing class and the most right-wing class in Britain - the unskilled manual class and the farmers - has the value log((65/(100-65))/(14/(100-14))), or 2.43. Log-odds-ratios calculated for the differences in voting behaviour between the unskilled manual class and all other EGP classes in Britain and the United States are given in the bottom rows of Tables 9.1 and 9.2.[3]

We now can examine the *observed differences in levels of EGP class voting* between the countries. As discussed in Chapters 2 and 6, on the basis of the log-odds-ratios presented in Tables 9.1 and 9.2, a kappa index as a measure of the observed level of EGP class voting can be calculated. The kappa index - the standard deviation of the seven log-odds-ratios measuring the differences in voting behaviour between the seven EGP classes - amounts to 0.99 for Britain and 0.20 for the United States. Thus, the observed differences in EGP class voting between Britain and the United States, measured by the kappa index, amounts to (0.99 - 0.20), or 0.79.

Additional to differences in EGP class voting, we can also examine the *observed difference in manual/nonmanual class voting* between Britain and the United States. On the basis of the mobility and voting patterns shown in Tables 9.1 and 9.2, it is possible to calculate measures of manual/nonmanual class voting for Britain and the United States. As discussed in Chapters 2 and 3, we use the Thomsen index as a measure of manual/nonmanual class voting in a country. This Thomsen index is the natural logarithm of an odds-ratio, where that odds-ratio is the odds for manual workers of voting left-wing rather than right-wing, divided by the odds for nonmanual workers of doing the same. Thus, to calculate the Thomsen index, first the chances of current members of the manual and the nonmanual classes voting for left-wing rather than right-wing political parties

Table 9.3. Counterfactual situation where the voting pattern is that in the United States and the mobility pattern is that in Britain, in the period 1961-1970. (Percentage of left-wing voters (L) by origin and destination class, and percentage of inflow mobility (I) from the origin classes into each destination class)

	Destination class													
	Unskilled manual		Skilled manual		Agric. Labourer		Routine nonmanual		Service class		Petty bourg.		Farmers	
	L	I	L	I	L	I	L	I	L	I	L	I	L	I
Origin class														
Unskilled manual	73	40	62	31	0	12	57	23	60	20	57	20	33	4
Skilled manual	56	31	68	49	33	6	53	34	55	29	64	24	86	9
Agric. labourers	90	8	50	7	50	59	0	4	67	2	33	6	67	4
Routine nonmanual	77	3	60	2	0	0	67	10	55	7	50	6	0	0
Service class	53	7	68	4	0	6	52	18	58	27	40	13	50	9
Petty bourgeoisie	76	7	56	5	0	0	61	8	57	11	44	21	25	4
Farmers	69	4	57	3	66	18	70	3	55	4	59	10	54	70
Total	68	100	64	100	42	100	54	100	58	100	53	100	56	100
Class distribution (Total = 100%)	26		32		2		9		22		7		2	
Log-odds-ratio	0		0.18		1.08		0.59		0.43		0.63		1.51	

have to be calculated. For members of the manual class this is the weighted average of the voting behaviour of the unskilled, skilled and agricultural manual workers. In Britain this amounts to (65*0.26 + 68*0.32 + 56*0.02)/(0.26 + 0.32 + 0.02), or 66 per cent. For members of the nonmanual class the chance of voting for a left-wing party is the weighted average of the chance to vote for members of the service class, the routine nonmanual class, the petty bourgeoisie, and the farmers. For Britain this is 27 per cent. Thus, in Britain for the period 1961-1970 the Thomsen index takes the value log((66/100-66)/(27/100-27)), or 1.67.[4] Corresponding calculations for the United States give a Thomsen index of 0.32. Consequently, the observed difference in manual/nonmanual class voting between Britain and the United States, when measured by the Thomsen index, amounts to (1.67 - 0.32), or 1.35.

It should be noted that the difference in mobility patterns between the two countries - as defined in this example - comprises two components. The first component is formed by the inflow mobility rates in each EGP destination class. The second component is formed by the percentages that give the distribution of the destination classes. These percentages, of course, also represent the composition of the manual and the nonmanual classes. Therefore, differences in levels of manual/nonmanual class voting between two countries can be due to differences in both components of the mobility patterns. Differences between countries in EGP class voting can only be due to different inflow rates, since levels of EGP class voting are insensitive to variations in the composition of the manual and nonmanual classes.

To investigate the extent to which observed differences in class voting, i.e. in both EGP class voting and manual/nonmanual class voting, between Britain and the United States can be explained by differences in their mobility patterns, we need two more steps. In the first step, we investigate what the differences would be in the counterfactual situation where these countries are assumed to have the same mobility pattern. In the second step, a comparison of these two differences gives an indication of the extent to which the observed differences in class voting between these countries are due to different mobility patterns.

We start by the first step, by asking what the *difference in the level of class voting* between Britain and the United States would be *in the counterfactual situation*. That is, we investigate what the differences in class voting would be if the United States had the same mobility pattern as Britain. In doing so, we touch upon Sombart's question of what would happen to socialism in the United States if the country had the same mobility pattern as Britain. Thus, we have to create a counterfactual situation where the voting pattern in the United States is as observed but the mobility pattern is as in Britain. This situation is presented in Table 9.3. The Thomsen index measuring the level of manual/nonmanual class

voting in this counterfactual situation has the value 0.38. This means that where both countries are assumed to have the same mobility pattern, i.e. that of Britain, the difference in Thomsen index between these countries amounts to (1.67 - 0.38), or 1.29.

As a second step, these results enable us to answer the question of *whether the differences in class voting between Britain and the United States outlined above is smaller than the observed difference in class voting between these countries.* In fact, we find that the difference between these countries in the counterfactual situation is (1.35 - 1.29)/(1.35 * 100), or four per cent *smaller* than the observed difference in Thomsen indices between these countries. In other words, only around four per cent of the difference in levels of manual/nonmanual class voting between Britain and the United States in the period 1961-1970 can be explained by differences in the mobility patterns between these two countries.

Furthermore, in the counterfactual situation given in Table 9.3, the kappa index has the value 0.34. The difference between the kappa indices of Britain and the United States in the counterfactual situation is therefore (0.99 - 0.34), or 0.65. This means that the difference in the kappa indices between the countries in the situation where these have the same mobility pattern is (0.79 - 0.65)/(0.79 * 100), or eighteen per cent *smaller* than the difference in the kappa indices of these two countries in the observed situation. Thus, in this case about eighteen per cent of the observed differences in EGP class voting can be explained by differences in mobility patterns between the two countries.

Of course, when investigating what the difference in class voting between Britain and the United States would be if both countries had the same mobility pattern, we could also have assumed that both countries had the mobility pattern of the United States, instead of that of Britain. Therefore, we also pay attention in two additional steps, to that counterfactual situation. In this situation the Thomsen index has the value 1.58. Thus, the differences in Thomsen indices between the countries under the assumption that these have the mobility pattern of the United States, amounts to (1.58 - 0.32), or 1.26, which is about (1.35 - 1.26)/1.35, or seven per cent *smaller* than the observed differences in kappa indices between the two countries. Furthermore, in the counterfactual situation where both countries are assumed to have the mobility patterns of the United States, the kappa index has the value 0.93. Thus the difference in kappa indices between Britain and the United States when both these countries have the mobility pattern of the United States, is (0.93 - 0.20), or 0.73, which is (0.79-0.73)/0.79, or eight per cent *smaller* than the observed difference in the kappa index between these two countries. Thus, we can conclude that around seven per cent of the difference in manual/nonmanual class voting between Britain and the United States in the period 1961-1970 and around eight per cent of the differences in EGP class

voting can be explained by differences in mobility patterns between the two countries. Whether these conclusions also apply when more countries are included in the analysis remains to be seen when we analyse our entire dataset.

9.3 Modelling the macro-effects of class mobility

Before we analyse our entire dataset to address our research questions, we explain how we model the results of our counterfactual analyses and thus obtain answers pertinent to our research questions.

The way we answer our research questions can be illustrated using the results of the above example for Britain and the United States. The results are summarized in Table 9.4. The entries in the main diagonal of Table 9.4 are the observed levels of class voting in Britain and the United States. The entries in the off-diagonal cells show the levels of class voting in the counterfactual situations. As discussed above, the differences in the observed class voting between Britain and the United States (CLV_{bri} - CLV_{usa}) has the value 1.35 for the Thomsen index, and 0.79 for the kappa index. The differences in class voting between Britain and the United States in the counterfactual situation where these countries

Table 9.4. Summary of modelling macro-effects of class mobility

	Mobility pattern			
	Thomsen index		kappa index	
Voting Pattern	Britain	United States	Britain	United States
Britain	1.67	1.58	0.99	0.93
United States	0.38	0.32	0.34	0.20
Summary Measures:				
CLV_{bri} - CLV_{usa}	1.67 - 0.32 = 1.35		0.99 - 0.20 = 0.79	
CLV_{bri} - $CLV_{usa,bri}$	1.67 - 0.38 = 1.29		0.99 - 0.34 = 0.65	
$CLV_{bri,usa}$ - CLV_{usa}	1.58 - 0.32 = 1.26		0.93 - 0.20 = 0.73	
$S_{usa,bri}$	(1.35-1.29)/1.35 = 0.04		(0.79-0.65)/0.79 = 0.18	
$S_{bri,usa}$	(1.35-1.26)/1.35 = 0.07		(0.79-0.73)/0.79 = 0.08	
S-parameter	0.06		0.13	

have the mobility pattern of Britain (CLV_{bri} - $CLV_{usa,bri}$), has the value 1.29 for the Thomsen index, and 0.65 for the kappa index. Subsequently, we calculate the extent to which the differences in levels of class voting in the counterfactual situation is smaller than the observed difference:

$$S_{usa,bri} = ((CLV_{bri} - CLV_{usa})-(CLV_{bri} - CLV_{usa,bri})) / (CLV_{bri} - CLV_{usa}) \quad (1)$$

This formula yields for the Thomsen index the conclusion that the difference is four per cent smaller than observed. For the kappa index it yields that it is eighteen per cent smaller than observed. In other words, four per cent of the differences in manual/nonmanual class voting between Britain and the United States can be explained by differences in the mobility patterns between these two countries, while the figure for EGP class voting is about eighteen per cent.

The second counterfactual situation, in which both countries were assumed to have the mobility pattern of the United States, yields somewhat different but still comparable results. Here, the differences in class voting between these countries is:

$$S_{bri,usa} = ((CLV_{bri} - CLV_{usa})-(CLV_{bri,usa} - CLV_{usa})) / (CLV_{bri} - CLV_{usa}) \quad (2)$$

According to the Thomsen indices the difference in class voting between these countries is seven per cent smaller than the observed difference; and according to the kappa indices it is eight per cent smaller than the observed difference. Thus, on the basis of this analysis, we can conclude that seven per cent of the difference in manual/nonmanual class voting and eight per cent of difference in the EGP class voting can be explained by differences in mobility patterns between the Britain and the United States.

In general then, for two countries k and l, the proportion to which differences in class voting between these countries - under the (counterfactual) assumption that these countries have the same mobility pattern (S_{kl}) - deviate from the differences in observed levels of class voting between these countries, can be represented by the following general equation:

$$S_{kl} = ((CLV_k - CLV_l)-(CLV_k - CLV_{kl})) / (CLV_k - CLV_l) \quad (3)$$

After reordering, this equation can be rewritten as follows:

$$CLV_{kl} = S_{kl}*CLV_l + (1-S_{kl})*CLV_k \quad (4)$$

where the CLV_k-parameters represent the observed class voting in country k, and

the CLV_l-parameters represent the observed class voting in country l.

We can of course do our counterfactual analyses simultaneously for more than two countries. However, when doing so, many S_{kl}-parameters are obtained. For two countries we already get 2 S_{kl}-parameters, but for 3 countries we get 6, and for 4 countries we end up with 12 S_{kl}-parameters. In general, when investigating differences for a number of n countries, this results in $(n^2 - n)$ S_{kl}-parameters. All these S_{kl}-parameters provide an indication of the extent to which variation in class voting between countries or periods can be explained by variation in patterns of mobility between these countries or periods.

In order to avoid ending up with many S_{kl}-parameters, and since our hypothesis does not say anything about varying influences between countries, we apply in this chapter a model that enables us to summarize the conclusions into a single parameter. We therefore assume the S_{kl}-parameter to be the same for all counterfactual situations. Thus, we estimate the parameters of the following model on the outcomes of the counterfactual analyses:[5]

$$CLV_{kl} = S*CLV_k + (1-S)*CLV_l \qquad (5)$$

We call the summary measure "S" the "S-parameter" as a tribute to Sombart (1976 [1906]), who was one of the first to explicitly state hypotheses on the macro-effects of intergenerational class mobility. When estimating the parameters of equation (5), the S-parameter is allowed to take any value. If the S-parameter takes a value between zero and one, than the predicted differences in class voting between the countries, under the assumption that these countries have the same mobility pattern, are smaller than the observed differences. It should be noted that if the S-parameter takes a value smaller than zero or larger than one, then the predicted differences are larger than the observed differences. In this way, the S-parameter gives a direct answer to our question: to what extent can differences in class voting be explained by differences in mobility patterns between these countries? The larger the S-parameter - if it has a value between zero and one - the more the differences in class voting can be explained by different mobility patterns.

In this chapter we use the above model to answer our research question, i.e. to examine the extent to which differences across countries and periods in levels of class voting can be explained by differences across countries and periods in patterns of class mobility. To do this, we first compute outcomes from counterfactual analyses for the countries. Subsequently, these outcomes, i.e. entries in a table like Table 9.4, are used as cases to estimate the parameters of the model. For example, when estimating the S-parameter on the four entries in Table 9.4 it takes the value 0.06 for the Thomsen indices and 0.13 for the kappa

Table 9.5. Levels of class voting (measured by Thomsen index) in observed and counterfactual countries, in the period 1961-1970

	Mobility pattern						
Voting pattern	Australia	Britain	Germany	Italy	Netherlands	Norway	United States
Australia	**1.34**	1.19	1.38	0.93	1.31	1.43	1.17
Britain	1.65	**1.67**	1.80	1.04	1.72	1.76	1.58
Germany	1.04	1.08	**0.85**	2.07	1.09	1.10	0.76
Italy	1.23	1.07	1.39	**0.74**	1.41	1.34	1.37
Netherlands	0.99	0.82	0.94	0.81	**1.05**	1.16	0.89
Norway	1.62	1.38	2.04	0.00	1.43	**1.84**	1.48
United States	0.34	0.38	0.33	0.41	0.39	0.42	**0.32**
Mean	1.17	1.08	1.25	0.86	1.20	1.28	1.08
Std. deviation	0.41	0.38	0.54	0.59	0.39	0.45	0.42

indices. Thus, by applying this model, we have the advantage of a single S-parameter summarizing all the above calculations.

9.4 Results

Explaining differences between countries

Let us start by addressing the question: To what extent can differences between countries in levels of class voting be explained by differences in their patterns of intergenerational class mobility? To do this, we divide our data into three periods: 1961-1970, 1971-1980, and 1981-1990. In the first period we have data from seven countries, in the second period from fourteen, and in the last period from twelve countries.

When analysing the data for these periods, we focus on the obtained S-parameters. However, before presenting these S-parameters we can illustrate our method using the data for countries in the first period, i.e. 1961-1970. In this period data from seven countries are available. Each of the seven countries in this period has a specific mobility pattern and a specific voting pattern. Thus, if the figures for mobility patterns are systematically combined with the figures for the voting patterns, we get seven by seven, or 49 voting/mobility combinations. Seven of these show the observed voting and mobility patterns in the countries and periods under investigation, while the remaining 42 are for the counterfactual situations. Thomsen indices, calculated from these matrices as measures of the levels of manual/nonmanual class voting, are reported in Table 9.5.

The entries in the main diagonal cells of that table show the observed Thomsen indices, which differ considerably across countries. The highest Thomsen index is observed for Norway (1.84) and the smallest for the United States (0.32). The variation in observed Thomsen indices can be summarized by the standard deviation calculated over these observed indices. This has the value 0.45. The off-diagonal entries in Table 9.5 show Thomsen indices representing levels of class voting in the counterfactual situations. In general, Thomsen indices in the counterfactual situations are more similar to that of the country the voting pattern is taken from, than to that of the country the mobility pattern is taken from. Moreover, we find that standard deviations summarizing the variation in class voting in the counterfactual situations where the countries have the same mobility pattern - given underneath Table 9.5 - are about the same size as, or even larger than, the standard deviations for the observed differences in class voting (0.45). These results indicate that differences in class voting between the seven countries in the period 1961-1970, are not, or at most are to a very small extent, due to

Table 9.6. S-parameters indicating the extent to which variation in class mobility patterns explains between-country variation in levels of class voting

	Thomsen index		kappa index		N. of
	S-parameter	s.e	S-parameter	s.e	cases
1961-1970	0.03	0.13	-0.03	0.12	49
1971-1980	0.16*	0.02	0.06*	0.02	196
1981-1990	0.00	0.04	-0.05	0.05	144

Note: * $p < 0.05$.

cross-country differences in mobility patterns.

To get a direct answer to our question of to what extent cross-country differences in mobility patterns account for differences in manual/nonmanual class voting between countries, we focus on the S-parameter estimates obtained from analysing the entries of tables like Table 9.5.[6] These estimates are presented in Table 9.6. In this table the standard errors of the parameter estimates are also given. However, we are reluctant to interpret the standard errors to examine whether this value differs significantly from zero, because the models are not applied to randomly collected data but to counterfactual situations. We find that for the period 1961-1970 the S-parameter has the value 0.03. This indicates that on average the difference in the Thomsen indices between the countries assumed to have the same mobility pattern, is three per cent smaller than the difference between the observed Thomsen indices of these countries. Or in other words, for the period 1961-70, about three per cent of the differences in class voting between the countries can be explained by differences in mobility patterns.

A similar conclusion results from our analyses of data from the other two periods. These are also presented in Table 9.6. For the period 1971-1980 the S-parameter takes the value 0.16, while for 1981-1990 it has the value 0.00. Thus in these periods sixteen and zero per cent respectively of the differences in manual/nonmanual class voting can be explained by differences in mobility patterns between the countries. Summarizing these results, on average over the three periods, about six per cent of the differences across democratic industrialized countries in manual/nonmanual class voting, as measured by Thomsen indices, can be explained by differences in the intergenerational mobility patterns between these countries.

However, as discussed above, when examining the effects of different mobility patterns on levels of manual/nonmanual class voting, two effects are combined. The first concerns the effect of differences in the composition of the manual and

nonmanual classes between countries. We already paid attention to these effects in Chapter 5. The other is the effect we are specifically interested in the present chapter, i.e. the effect of differences in mobility patterns between countries. Therefore, to get a better idea of the effects of differences in mobility patterns on levels of class voting, we examine the effects on levels of EGP class voting. When examining levels of EGP class voting, we control for variation in the composition of the manual and nonmanual class.

When investigating the extent to which differences in EGP class voting between countries can be explained by differences in mobility patterns between the countries, we follow the same strategy as above, but now apply it to kappa indices, instead of Thomsen indices. The pertinent S-parameters are presented in the second main column of Table 9.6. For the period 1961-1970 the S-parameter is -0.03, for 1971-1980 it is 0.06, and for the period 1981-1990 it has the value -0.05. Consequently, over all three periods, on average the S-parameter has the value -0.01. Negative parameters imply that on average differences in class voting between countries in the counterfactual situations are even larger than the observed cross-country differences in class voting. Thus, on the basis of these results, it can be concluded that observed differences across democratic industrialized countries in levels of EGP class voting, when measured by kappa indices, can not be explained at all by differences in the patterns of intergenerational class mobility across these countries.

The fact that differences in *EGP class voting* can not be explained by differences in patterns of mobility, has implications for the interpretation of results concerning the effects of class mobility on levels of *manual/nonmanual class voting*. We found that differences between countries in intergenerational mobility patterns to some extent are responsible for differences in manual/nonmanual class voting between these countries. However, these differences in mobility patterns concern the combined differences in two components of mobility patterns: the inflow mobility rates and the composition of the manual and nonmanual classes. The fact that our analyses show no effects of class mobility on EGP class voting, therefore, leads us to the conclusion that the effect of class mobility on manual/nonmanual class voting is only due to differences in the class composition of the manual and nonmanual class, and not to differences in inflow mobility rates. This deduction is supported by the conclusion of Chapter 5, which holds that differences in class composition between countries to some extent explain differences in manual/nonmanual class voting between these countries. Consequently, we conclude that differences across democratic industrialized countries in manual/nonmanual class voting can not be explained by differences in the intergenerational mobility patterns between these countries.

Explaining changes within countries

The results of our analyses so far thus suggest that differences in mobility patterns do not explain differences in class voting between countries. However, it might be that changes over-time in class voting within countries can be explained, to some extent at least, by changes in the patterns of intergenerational class mobility in these countries. To examine whether this is the case, we adopt the same strategy used in our investigation of the between-country differences. The only difference is that now we distinguish periods within each country, instead of countries within each period. To avoid ending up with many empty cells and to do away with possible errors in datasets from a single year, we do not distinguish between years within countries, but only between five-year periods, beginning in 1961. Our dataset allows us to analyse data from only ten countries, because for the other countries no data from more than two periods are available.

Before discussing the estimates of the S-parameters, we illustrate the method by using data from a single country. Since Britain is a country in which a strong decline in class voting has occurred over the last decades, we use it as an example. To examine the extent to which changes in class voting can be explained by changes in patterns of intergenerational class mobility in Britain, we systematically combine figures for mobility patterns with the figures for the voting patterns. The computed Thomsen indices, as measures of the levels of manual/nonmanual class voting are reported in Table 9.7.

The entries in the main diagonal cells of Table 9.7 show the observed Thomsen indices in Britain for each of the periods. These indicate a clear decline in class voting from 1.82 in the first period, to 1.35 in the last period. This decline in class voting is in line with our findings in Chapter 3, where we investigated over-time changes in manual/nonmanual class voting on a year-to-year basis. The entries in the off-diagonal cells show Thomsen indices representing levels of class voting in the counterfactual situations. We find that these counterfactual Thomsen indices have values that are more like those in the period the voting pattern is taken from, than those in the period the mobility pattern is taken from.

Furthermore, the standard deviations summarizing the variation in class voting in the counterfactual situation where the periods have the same mobility pattern - given below Table 9.7 - are either the same as, or even larger than, the standard deviation for the observed changes in class voting (0.19). Thus, it is unlikely that changes in the patterns of mobility explain changes in manual/nonmanual class voting in Britain over the decades.

In addition, when applying our method of analysis to the entries of Table 9.7 that give the observed and counterfactual levels of class voting, this yields an S-parameter with the value -0.12. A negative S-parameter means that in general the

Table 9.7. Levels of class voting (measured by Thomsen index) in observed and counterfactual periods in Britain, 1961-1990

	Mobility Pattern					
Voting pattern	1961-65	1966-70	1971-75	1976-80	1981-85	1986-90
1961-65	**1.82**	1.89	1.81	1.82	1.83	1.83
1966-70	1.56	**1.60**	1.64	1.66	1.61	1.71
1971-75	1.44	1.53	**1.50**	1.53	1.49	1.55
1976-80	1.31	1.31	1.37	**1.28**	1.28	1.35
1981-85	1.48	1.51	1.50	1.50	**1.51**	1.49
1986-90	1.21	1.24	1.31	1.32	1.33	**1.35**
Mean	1.47	1.51	1.52	1.52	1.51	1.55
Std. deviation	0.21	0.23	0.18	0.20	0.20	0.19

difference between periods assuming the same mobility pattern for these periods are even larger, than the observed differences in class voting between these periods. Thus, we are led to conclude that in Britain changes in manual-/nonmanual class voting over the periods considered cannot be attributed to changes in the mobility patterns over these periods.

Next, we examine the extent to which over-time changes in levels of class voting can be explained by over-time changes in intergenerational class mobility in all our countries under investigation. The effects of intergenerational class mobility on class voting in a country are investigated by means of S-parameters. Since it is only possible to examine trends when data for more than two periods are available, in Table 9.8 we report the estimated S-parameters for the ten countries from which we have data for at least two five-year periods.

We find that with respect to the levels of manual/nonmanual class voting, measured by Thomsen indices, in five countries the S-parameters have a negative value. These five countries are Britain, Denmark, Germany, Italy, and Norway. The negative S-parameters imply that in these countries the changes in class voting between the periods in the counterfactual situation are even larger than the observed changes in class voting over the same periods. Furthermore, in the remaining five countries the S-parameters have positive values. Austria and Sweden have the largest values (both: 0.36). In the United States and the Netherlands the S-parameters have the smallest positive value: 0.05 and 0.02 respectively. Furthermore, over all ten countries the average of the S-parameters

Table 9.8. S-parameters indicating the extent to which variation in class mobility patterns explains over-time variation in levels of class voting

	Thomsen index		kappa index		N. of cases
	S-parameter	s.e	S-parameter	s.e	
Australia	0.18*	0.04	0.03	0.10	36
Austria	0.36	0.15	0.75	0.44	9
Britain	-0.12*	0.04	0.20	0.31	36
Denmark	-0.03	0.07	0.28*	0.11	4
Germany	-0.18	0.18	0.08	0.05	25
Italy	-0.65	0.52	-0.02	0.19	9
Netherlands	0.02	0.12	-0.13	0.17	25
Norway	-0.05	0.10	-0.23	0.22	25
Sweden	0.36*	0.13	-1.40*	0.19	4
United States	0.05*	0.02	-0.49	0.29	36

Note: * $p < 0.05$.

has the value -0.01. Thus, we can conclude that in general changes over-time in levels of manual/nonmanual class voting within democratic industrialized countries cannot be explained by changes in the intergenerational mobility patterns within these countries. Taking into account that - as we concluded in Chapter 5 - variations in class compositions are able to explain about a fifth of the over-time variations in the levels of manual/nonmanual class voting within countries, our findings imply that effects of changes in the composition of the manual and nonmanual classes are surpassed by counter-acting effects of changes over-time in the inflow mobility rates of the EGP classes within these countries.

A similar story emerges from an examination of the S-parameters for the levels of EGP class voting, as measured by kappa indices. The pertinent S-parameters are reported in the second main column of Table 9.8. Here we again find negative S-parameters for Norway and Italy. In addition negative parameters are found for the Netherlands, Sweden, and the United States. For Sweden we even find a S-parameter of -1.40. This value is probably due to the fact that the estimation of the S-parameter is based only on a comparison of two periods, and thus on only four cases in this analysis. For the countries where we find a positive S-parameter, these parameters differ largely in size. They range from 0.75 for Austria, to 0.28 in Denmark, to 0.08 in Germany and 0.03 in Australia.

However, the average value of the S-parameters over the ten countries is -0.09. Thus, these findings reinforce our conclusion that in general the observed changes in class voting across the periods studied in the democratic industrialized countries are to a large extent unrelated to changing class mobility patterns in these countries.

9.5 Conclusions

In this chapter we investigated whether macro-effects of intergenerational class mobility on levels of class voting in countries could be found. The existence of such effects had been suggested in many studies of the first generation of research on stratification and politics. In fact, these effects had been already explicitly touched upon by Sombart, in his attempt to explain why there was no socialism in the United States. In studies of the first generation, the effects of class mobility were only tested by tentative comparisons of rates of mobility of countries and their levels of class voting. Furthermore, they were not tested when using detailed class schemes, and taking into account the complicated relationship between mobility patterns and levels of class voting.

In the present chapter we aimed to improve upon these earlier tests. We did so by investigating the macro-effects of class voting on a large individual-level dataset for sixteen countries over the postwar period. Furthermore, we did our analyses focusing on both the levels of manual/nonmanual class voting and the levels of EGP class voting. In addition, we applied a method of counterfactual analysis that enabled us to take the complex macro-micro-macro link between the mobility patterns of countries and their levels of class voting into account. Moreover, we used models of the third generation to analyse the outcomes of the counterfactual analysis and to get single measures of the extent to which variation in class voting can be explained by variation in patterns of intergenerational class mobility.

However, despite the large amount of literature on the macro-effects of mobility on levels of class voting, and the elaborate way we investigated these effects, we had to conclude that *differences across democratic industrialized countries in levels of class voting could not at all be explained by cross-country differences in patterns of intergenerational class mobility.* We did find some effect of differences in mobility patterns on variations in manual/nonmanual class voting. However, the results of our analyses indicated that these were due to differences in the composition of the manual and nonmanual classes between the countries, and not to differences in the rates of inflow mobility between the countries. Our analyses also showed that *changes over-time in levels of class*

voting within these countries could not be explained by changes within these countries in patterns of intergenerational class mobility. This conclusion was obtained for both manual/nonmanual class voting and for EGP class voting.

10 Summary and Discussion

10.1 Summary

In almost all industrialized countries where people have the right to vote at general elections, people's social position - in particular their class - is important in determining their party choice. Since those in the lower classes are more likely to vote for a left-wing party than are those in the higher classes, it can be said that in every country a so-called "democratic class struggle" takes place.

The present study focused on the relationship between class and voting behaviour in democratic industrialized countries. It did so, by addressing three sorts of questions which, although they had been addressed in earlier studies, had not yet been adequately answered. First, descriptive questions concerning the levels of class voting in Western industrialized countries over the postwar period are addressed. Second, it examined questions of various explanations for between-country and over-time variations in class voting. Third, this study concentrated on questions about the effects of intergenerational class mobility on individual voting behaviour.

When addressing these questions, this study builts on a long history of research on social stratification and politics. As discussed in *Chapter 1*, the history of this research area can be divided into three generations. Over these three generations considerable progress has been made with respect to the articulation of research questions, measurement procedures, data collection and methods of analyses. In studies of the first generation - starting in the 1950s and ending in the 1970s - relatively vague research questions were addressed by examining cross-tabulations based upon a limited number of datasets and using simple class measures. In studies of the second generation - beginning in the 1960s - more precise questions were addressed analysing more survey data with more adequate linear regression techniques. Studies of the third generation - that started in the 1980s - have dealt with more precise research questions, using detailed and standardized class measures, large scale comparable datasets, and non-linear research techniques. However, this third generation is only still in its infancy and has yet to live up to expectations. The present study, by addressing classical questions on the relationship between class and voting behaviour, by applying up-to-date measurement procedures and methods of analysis, and by analysing large datasets, aims to live up to some of these expectations.

Data and operationalizations

The data analysed in this study come from two datasets. The first dataset consists of aggregated data from twenty Western industrialized democratic countries - i.e. from all Western European countries, Australia, Canada, and the United States - over the period 1945-1990. This dataset includes both data on levels of class voting in the countries, and data on various social and political characteristics of these countries. The second dataset contains data on individuals from 113 national representative surveys held in sixteen out of the twenty countries - leaving Greece, Luxembourg, Portugal and Spain aside - in the period 1956-1990. The use of both these large datasets allowed us to come up with reliable answers and lessened the chance to not accepting hypotheses, while these hypotheses in reality hold. Furthermore, these data allowed for relatively strong tests by doing multivariate analysis.

The measurement procedures for people's class position used in this study are diverse. First, we applied the traditional manual/nonmanual class scheme. In other analyses we applied a more detailed class scheme, i.e. the class scheme developed by Erikson, Goldthorpe, and Portocarrero, the so-called "EGP" class scheme. According to this EGP class scheme, unskilled, skilled and agricultural manual workers are distinguished within the manual class, and service class workers, routine nonmanual workers, petty bourgeoisie and farmers within the nonmanual class. To measure the strength of the relationship between class and voting behaviour, i.e. the level of class voting, we used log-odds-ratios.

Description of levels of class voting

From the very beginning of research on class and voting behaviour, studies have shown that the strength of the relationship between class and voting behaviour differed between countries. In addition, these studies have shown that the strength of that relationship declined over the postwar period in most of these countries. These conclusions were especially drawn in studies of the first generation of social stratification and politics. In these studies levels of class voting were measured on the basis of so-called "Alford indices", that only distinguish between manual and nonmanual classes and measure absolute differences in voting behaviour.

However, in studies of the third generation doubts were raised about the conclusions of these first generation studies. It was claimed that differences detected, when using measures of absolute class voting like the Alford index, might not (solely) be due to differences in the strength of the relationship

between class and voting behaviour, but also to differences in the general popularity of the political parties. Furthermore, it was argued that differences between countries or periods detected when using the manual/nonmanual class scheme, might to some extent be due to differences in the composition of the manual and nonmanual classes between countries or periods, and not (only) to differences in the strength of the relationship between class and voting behaviour. Consequently, in third generation studies it was argued that when using a measure of relative class voting and distinguishing between more detailed classes, descriptions of levels of class voting might lead to different conclusions about between-country and over-time differences in class voting.

In the present study we tested the tenability of these arguments. In *Chapter 3* we described the levels of class voting using measures of relative class voting that distinguish between manual and nonmanual classes - i.e. Thomsen indices. Thus, we examined what we called the levels of relative *manual/nonmanual class voting*. In *Chapter 6* we also described the levels of relative class voting, but in that chapter we distinguished classes according to the more detailed EGP class scheme, and therefore talked about the levels of relative *EGP class voting*.

The analyses for both manual/nonmanual class voting and EGP class voting yielded basically the same conclusions. They indicated that *substantial differences in levels of relative class voting existed between democratic industrialized countries in the postwar period. Of all countries under investigation, the Scandinavian countries and Britain had the highest levels of class voting, and the United States and Canada the lowest.* In addition, our analyses showed that *in many of the countries substantial declines in levels of relative class voting occurred in the postwar period. The declines were largest in the Scandinavian countries, followed by Germany and Britain.* Moreover, we found no evidence of substantial declines in class voting in Canada, Ireland, Luxembourg, Switzerland and the Netherlands. This despite the fact that for these countries data over a considerable time period were available.

In addition, analyses showed, when describing between-country differences and over-time changes in class voting, that the various measures of class voting yielded the same conclusions with respect to the ranking of the countries according to their levels of class voting, and according to the speed of declines of class voting. These results, however, do not imply that the claims of the scholars of the third generation were wrong. Our findings, as we discuss later in more detail, showed that some of the between-country and over-time variations in manual/nonmanual class voting were due to variations in the composition of the manual and nonmanual classes, and not only to variations in the strength of the relationship between class and voting behaviour.

Explanations of variation in class voting

In this study three explanations for the between-country and over-time variations in class voting were tested. The first explanation - that involves indirectly the above discussed descriptions of class voting - concerns the *effects of the composition of manual and nonmanual classes on class voting*. This explanation was suggested by scholars of the third generation, but was never directly tested. It supposes that between-country and over-time variation in class voting, when measured by the manual/nonmanual class scheme, to some extent can be explained by differences between these countries and changes within these countries in the composition of the manual and nonmanual classes. We tested this explanation in *Chapter 5* analysing our individual-level dataset containing data from sixteen countries. When doing so, we presumed that within the manual and the nonmanual classes a distinction could be made between sub-classes. These sub-classes are defined according to the class scheme developed by Erikson, Goldthorpe and Portocarrero (the EGP class scheme).

The test of this explanation revealed that *about a quarter of the differences across democratic industrialized countries, when measured by the manual-/nonmanual class distinction, could be explained by differences in the composition of the manual and nonmanual classes between these countries.* Furthermore, *around one fifth of the changes within democratic industrialized countries in manual/nonmanual class voting, could be explained by changes in the composition of the manual and nonmanual classes within these countries.* These results thus imply that variations in manual/nonmanual class voting were not entirely due to variation in the strength of the relationship between class and voting behaviour. On the other hand, these results imply that at least three quarters of between-country and over-time variations in manual/nonmanual class voting were due to variation in the actual voting behaviour of the EGP sub-classes between the countries and periods. This thus explains why both our descriptive analyses for manual/nonmanual and EGP class voting, i.e. controlling for variation in the composition of the manual and nonmanual class, basically yielded the same results.

The second explanation of differences and trends in class voting that we investigated, concerns the *effects of social and political characteristics of countries on manual/nonmanual class voting*. In studies that predominantly appeared in the first and second generation of research on stratification and politics, it was suggested that differences across democratic industrialized countries and changes within these countries in levels of manual/nonmanual class voting could to some

extent be explained by between-country and over-time variations in the social and political characteristics of countries. However, these explanations were predominantly vaguely formulated, and have not been subjected to strong empirical tests by analysing large numbers of data with multivariate techniques. Therefore, in *Chapter 4*, we improved upon the earlier studies and formulated seven precise hypotheses explaining levels of manual/nonmanual class voting. Subsequently, these hypotheses were tested using our aggregated country dataset containing information on class voting and social and political country characteristics for twenty countries for various years in the postwar period.

These tests resulted in somewhat different conclusions. With respect to between-country variations in class voting, the tests revealed that *differences in the levels of manual/nonmanual class voting between democratic industrialized countries can to some extent be explained by differences in religious and ethnic diversity among the inhabitants in these countries, and by cross-country differences in the extent of trade union membership: The higher the religious and ethnic diversity among the inhabitants of a country and the lower the union density in a country, the lower the level of class voting.* No effects on cross-country differences in class voting were found with respect to a country's income differences, the size of the manual class, the general standard of living, and whether class was an issue in politics. Furthermore, an unexpected effect was found of the amount of intergenerational class mobility: the higher the percentage of mobile persons in a country, the higher the level of class voting in that country.

With respect to developments over-time in manual/nonmanual class voting, our tests indicated that *changes in class voting within the democratic industrialized countries to some extent can be explained by changes in the standard of living of the inhabitants in these countries. The higher the standard of living of a country's inhabitants, the lower the level of class voting. Furthermore, changes in a country's level of class voting can be explained by changes in the proportion of inhabitants that were members of a trade union in that country. A growth in union density in a country leads to a decline in the level of class voting.* This unexpected finding is especially the case in countries where a general rise in union density was accompanied by a rise in the numbers of nonmanual class members becoming union members.

A third account of between-country and over-time variations in levels of class voting concerns the *macro-effects of intergenerational class mobility on class voting*. When examining the effects of social and political characteristics of countries on class voting we already focused on the effects of intergenerational class mobility. However, after having done that we suggested that it would be

worthwhile to investigate these effects again, this time taking into account the micro-level assumptions concerning the individual voting behaviour of mobile and immobile class members. The macro-level explanation tested *Chapter 9* invokes cross-country differences and developments in patterns of intergenerational class mobility as explanatory factors for variations in class voting. This explanation has a long tradition in studies on stratification and politics. For example, it was already touched upon in the classic study of Sombart, where he tried to explain why there was no socialism in the United States, and it has also been raised in many more recent studies. However, no serious tests had been done to test this explanation over the long history of research in this area. We examined these effects of class mobility using our individual level dataset on twenty countries over the period 1956-1990. To take into account the micro-assumptions necessary to relate a country's mobility pattern with its level of class voting, we applied a method of counterfactual analysis.

However, despite the large amount of literature on the macro-effects of mobility on class voting, and the elaborate way we investigated these effects, the conclusion was that *differences across democratic industrialized countries and changes within these countries in levels of class voting, could not at all be explained by cross-country differences or over-time changes in the patterns of intergenerational class mobility of these countries.* This conclusion was obtained both for levels of manual/nonmanual class voting, and for levels of EGP class voting.

Effects of class mobility on individual voting behaviour

Before we tested the macro-level explanation of variations in class voting between countries and periods by variations in intergenerational class mobility patterns, some micro-level assumptions were tested. These assumptions concerned the effects of intergenerational class mobility on individual voting behaviour. The effects of class mobility on individual voting behaviour are twofold: effects of individual class mobility and contextual effects of class mobility.

The *effects of individual intergenerational class mobility on voting behaviour* were examined in *Chapter 7.* These effects had been investigated earlier. However, in the studies of the first and second generation this was predominantly done by examining percentage figures in cross-tabulations based on relatively small datasets, or by applying substantially inappropriate linear regression models on a limited number of datasets. In this study we were able to use more appropriate models, so-called "diagonal mobility" models. Furthermore, we analysed our

individual dataset containing data from 113 cross-sectional surveys representing sixteen countries over the period 1956-1990. We tested the tenability of four specific hypotheses on the effects of individual intergenerational class mobility on the voting behaviour of mobile persons.

We found that in all countries that the voting behaviour of the intergenerationally mobile persons is somewhere between the typical voting behaviour of their class of destination and that of their class of origin, which confirmed our weak economic hypothesis. The outcomes of the analyses showed that for all countries the effect of destination class was larger than the effect of origin class. *Furthermore, we found that in seven countries - Austria, Britain, Denmark, Finland, Germany, the Netherlands, and the United States - the voting behaviour of older intergenerationally mobile people is closer to the typical voting behaviour of their class of destination relative to the typical voting behaviour of their class of origin, than is the voting behaviour of younger intergenerationally mobile people.* This supported our acculturation hypothesis. The parameter estimates obtained in our analyses showed that for our youngest respondents the effect of class origin was almost equal to the effect of their class destination. By the time respondents had reached sixty five years of age the relative destination effect was two times the size of the origin effect. The latter thus still had a substantial impact on the voting behaviour of this age group.

The acceptance of these two hypotheses implied that the two other tested hypotheses, i.e. the strict economic hypothesis and the status maximization hypothesis, had to be rejected. The strict economic hypothesis states that the voting behaviour of the intergenerationally mobility persons is identical to the typical voting behaviour of their class of destination. The status maximization hypothesis, holds that upwardly intergenerationally mobile persons orient their voting behaviour relatively more to the typical voting behaviour of their class of destination, than do downwardly intergenerationally mobile persons.

The *contextual effects of intergenerational class mobility on the voting behaviour* of immobile class members were investigated in *Chapter 8*. Hypotheses on these contextual effects had already been raised several times, especially in the first generation. These hypotheses concerned the effects of levels of inflow and levels of outflow mobility in a class. On the basis of this literature we formulated two testable hypotheses. The first was: the higher the level of left-wing inflow mobility to a class, the more likely it is that the voting behaviour of immobile members of that class will vote for a left-wing party. The second was: the higher the level of left-wing outflow mobility from a class, the more likely it is that the voting behaviour of immobile members of that class will vote for a left-wing party. To test these hypotheses it was necessary to have data on many "contexts",

i.e. on many classes, countries and periods. In this study we therefore tested the hypotheses by analysing our individual dataset containing data from seven classes in sixteen countries and over a long period and thus from many contexts. In addition, we used a method of analysis that is especially designed to investigate contextual effects, multi-level models. Despite these efforts, the results were negative. The analyses showed *no significant contextual effects of either the level of intergenerational inflow- or the level of outflow class mobility in a country on the voting behaviour of intergenerationally immobile persons.*

10.2 Discussion

Having summarized the main findings of this study, we now discuss the implications of these findings. Doing so, we first go back to the theoretical premises of this study. Second, we discuss the research design we applied, reviewing the employed measurement procedures, the data analysed and the methods of analyses utilized. Third, we discuss some research questions that deserve attention in future research.

THEORETICAL PREMISES

In this study we started by addressing questions at the macro-level, i.e. questions concerning the levels of class voting in a country at any given point in time. Nevertheless, after we did some explanatory analyses (in Chapter 5), we suggested that we should also include assumptions at the individual-level in our theory. Therefore, in later chapters we paid specific attention to individual-level assumptions (e.g., in Chapters 7 and 8), and we integrated these in macro-level analyses (e.g., in Chapter 9). It could be asked then, whether it was perceptive to start at the macro-level in this study. One could argue that this indeed was a good strategy for two reasons. The first reason is that macro-level phenomena are of interest in themselves. We regard it as a relevant question to find out why in some countries some factors have more impact on people's behaviour than in other countries. In fact, the study of these macro phenomena has been the main reason for the very existence of sociology and political science. The second reason why we think addressing macro-level questions is relevant, is that a repetition of answers to micro questions, almost inevitably leads to macro questions. For example, when in Norway election after election the effect of class on individual voting behaviour is shown, an over-time comparison of these effects shows that this effect decreased over-time. This then leads to the macro-level

question why the effect of class on voting behaviour in Norway decreased.

Another feature of this study is its particular perspective. When explaining between-country and over-time variations in levels of class voting, we remained as close as possible within the class perspective. That is, when explaining differences in levels of class voting, we mainly focused on explanations concerning the class position of individuals. These explanations almost without exception implied that if the class positions of individuals were more adequately defined, then no differences in class voting between countries and no changes over-time would exist. We began by proposing the use of more detailed classes, then we argued that people's class positions should be defined not only in relation to current class, but also to origin class.

Having stayed firmly within this class perspective we now ask ourselves whether this was a successful choice and whether future studies on this topic should also adopt this perspective. Three answers to these questions come up. First, we found that variation in levels of manual/nonmanual class voting indeed to some extent could be explained by variations in the composition of these classes. This suggests that by using an even more detailed class scheme we might be able to explain more of the variation in class voting.

A second answer is that, although in this study some class-based explanations were not corroborated, this does not mean that the entire class perspective has to be rejected. It still offers various possibilities for explaining between-country and over-time variations in class voting. For example, more attention should be paid to the explanatory power of the rise of so-called "new classes", the class position of women, and the effects of mixed class marriages. Only if these possibilities within the class perspective turn out to be ineffective at explaining variations in class voting, should the class perspective be abandoned.

However, the third reason why the class perspective is likely to remain important is because of the lack of full-blooming alternative approaches for explaining variations in class voting. For example, a perspective - such as Inglehart's theory on post-materialism - implying that people more and more vote on the basis of issues instead of their class interests, seems to overlook that class interests always had a central position on the agenda in daily politics. Furthermore, a perspective presupposing that political institutions influence electoral outcomes seem to have a limited scope for explaining variations in class voting. There are several reasons for this. To begin with, it is not clear that this perspective is supposed to apply to the relationship between class and voting behaviour at all. Second, there are difficulties in specifying the exact nature of the relationship between institutions and electoral outcomes. It is complex to derive from this perspective whether a certain institution makes for a stronger or weaker relationship between class and vote. Third, it is acknowledged that political institutions

are conditioned by social structures. In conclusion, we would like to maintain that any perspective explaining electoral outcomes, if it is successful, should not just postulate the existence of the major and smaller political parties, but should seek to explain their existence as resulting from the votes cast by individuals. Thus, we regard it a useful strategy to continue research within a perspective that does that, i.e. the class perspective.

RESEARCH DESIGN

The present study builds on a long history of research on social stratification and politics. We claim that by using up-to-date data, applying current measurement procedures and employing contemporary research methods we have been able to address more precise questions and to come up with more adequate answers than in earlier studies. Now we have finished our examinations in this study, it is time to evaluate the applied research design, and to think of possibilities where (more) progress can be made in future studies.

Measurement procedures

With respect to measurement procedures, one of the ways we aimed to make progress in this study was by using a detailed class scheme. We used the EGP class scheme in addition to the manual/nonmanual class scheme that has traditionally been used in studies on stratification and politics. Despite the fact that the EGP class scheme proved useful, future studies might consider some improvements. A first adjustment that might be considered concerns the number of classes that are distinguished. In the class scheme, some classes are relatively large in numbers and members seem quite heterogeneous in their interests. This especially concerns the service class. This class has been shown in some countries to comprise about one third of the population. Furthermore, Inglehart (1990) and Kriesi (1989) have suggested that within the service class there is a substantial group that could be labelled the "cultural and social" specialists. This sub-class is characteristic for the post-industrial society, and has relatively left-wing voting patterns rather than the right-wing voting behaviour characteristic of members of the service class. In addition, a distinction can be made between service class members employed in the public sector and those employed in the private sector. Members of the public sector sub-class of the service class can be expected to be relatively more in favour of left-wing political parties, since their employment conditions depend on the policy implemented by the government and left-wing

parties are more in favour of a large public sector than right-wing parties. Those employed in the private sector can be expected to be relatively more in favour of right-wing political parties, since their employment conditions are influenced by the chances private firms get from the government to make profit.

Another recommendable adjustment to the operationalization of class concerns the class position of women. In this study we excluded women from our analyses, since it was theoretically unclear how the social positions of especially wives should be defined. According to the current literature they could not be assigned solely on the basis of their husbands' occupations or solely on the basis of their own occupations. However, for this study, we were unable to find adequate more complex operationalizations to take account of the interactions between husbands' and wives' occupations. In future research such operationalizations have to be developed. Furthermore, examinations of the relationship between the class position of women and their voting behaviour in democratic industrialized countries over the post war periods are worthwhile.

When operationalizing people's voting behaviour, we followed a tradition in comparative research on the relationship between class and voting behaviour. We left aside those respondents who did not vote, and we dichotomized the political parties people could vote for into left-wing and right-wing. We argued that this captured the most relevant distinctions.

However, in future studies it would be interesting to distinguish between all the separate political parties that run in a country's elections. This would enable us to find out whether substantial changes in the voting patterns of social classes have occurred within left-wing or ring-wing political blocks. For example, it might be that in the Netherlands - a country where we did not find a systematic decline in class voting - the manual workers are just as likely to vote for left-wing parties as before, but are less apt to vote for extreme left-wing parties, choosing instead more moderate left-wing parties. Evans et al. (1991) and Heath et al. (1985, 1995) have already applied more detailed party classifications when investigating trends in Britain, and Hout et al. (1994) have done likewise for the United States. For trend analyses in other countries and for cross-nationally comparable studies in the future these examples deserve to be followed. Furthermore, distinguishing between all parties that run in a country's election allows for tests of hypotheses stating that changes in the behaviour of the political parties are to some extent responsible for changes in voting behaviour of classes.

A further recommendation for future research is the inclusion of a category "non-voters". Hout et al. (1994) did this in their trend analyses for the United States. This strategy is useful, since members of manual classes are in general less apt to vote at elections than are members of nonmanual classes. Thus, it

might be that when analysing only respondents who vote, the effect of people's class on their voting behaviour is underestimated. Furthermore, variations in class-based non-voting, might explain variations in levels of class voting as examined in the present study. For example, the declines in levels of class voting found in this study might have been caused by the fact that the left-wing manual workers stopped voting at all. We thus regard research that includes analyses of non-voting in the examinations of class voting as a worthwhile development.

Data

We would also like to comment on the data used in this and future studies on class voting. To address the descriptive questions on the extent which countries differed in their levels of class voting and to what extent there was a decline in these levels in the countries, we used data from a large number of surveys that were held in many countries and over numerous years. When addressing our descriptive questions, these countries and years then became the cases in the analyses. In this way we avoided a traditional problem in comparative and trends studies, i.e. the "small N problem". However, despite our data collection efforts, we occasionally still ended up with a small number of cases. This resulted in some analyses depending on only a few cases, and consequently outliers having a large influence. An obvious suggestion for future research therefore is to collect and analyse more surveys from more countries (e.g., eastern European countries) and years (e.g., after 1990). However, although we do not claim to have fully reached the limits of this strategy, we think we already included most of the publicly available datasets containing detailed measures of respondent's origin and destination class and voting behaviour, especially for the period before 1980. Therefore, the small N problem probably cannot be solved by collecting more data, but has to be solved by paying specific attention to the robustness of the results and the effects of possible outliers on these results. Thus, more explorative research in this area, as well as the use of methods of analysis that are designed to deal with the effects of outliers, seems worthwhile.

Another suggestion concerns the quality of the data. In this study we used data from high quality surveys. Furthermore, we explicitly checked for outliers with respect to the class and voting distributions. However, the datasets still differ in the way respondents' current and former classes or occupations were coded. In some surveys detailed codes were available, while in others more crude measures were included. Furthermore, surveys differed in their sampling procedures. These differences in the characteristics of the studies had an unknown impact on the outcomes of the analyses. Therefore, we suggest that future research should pay

explicit attention to the effects of these characteristics of survey data. This can be done by specific studies of the effects of survey characteristics on class measures, voting measures, and measures of strength of the relationship between class and voting behaviour. It can also be done by including data-quality variables as control variables in descriptive and explanatory analyses of class voting (See for example: Ganzeboom et al. 1989).

Methods of analyses

In this study we employed methods of analyses that were available to studies of the third generation of research on stratification and politics. These methods are equipped to analyse large scale datasets and use log-odds-ratios as a measure of class voting. They were successful in getting adequate answers to our research questions in this study. However, we would also like to suggest some other methods for future research.

First, when describing and explaining levels of class voting between countries and periods - as discussed above - we had to deal with the "small N problem". This problem raises questions on the robustness of our results, i.e. the outliers might have had a large impact. For future research it is therefore worthwhile to pay specific attention to the impact of these outliers on results of analyses. When doing so techniques that are specially developed to examine the effect of outlying cases in analyses on a small number of cases, like bootstrapping and jackknifing, can be applied.

Second, we would like to focus on the methods we used to test the explanations of varying levels of class voting at the macro-level, while including individual-level assumptions. In this study, when testing the class composition explanations and the class mobility analyses, we used the so-called "method of counterfactual analysis". This had been useful in earlier studies and was effective in the present study when doing comparative analyses. Even more, we claimed to have improved on this method by analysing its outcomes with non-linear models as discussed in Chapter 9. However, we still feel that it would be relevant to formalise the method of counterfactual analysis and the use of these models. It is a potentially important method for cross-national and over-time analysis, and needs theoretical and technical support.

RESEARCH QUESTIONS

Finally we discuss some research questions to be addressed in future research. We

pay attention to the same three types of questions that were central in this study: descriptive questions on levels of class voting, explanatory questions on class voting, and questions about the effects of intergenerational class mobility on individual voting behaviour.

Descriptive questions

In this study we claim to have made progress by addressing descriptive questions concerning relative levels of class voting and concerning many countries over such a long period. Furthermore, we addressed our descriptive questions on relative class voting while distinguishing between more than two classes. However, we did not fully use the possibilities offered by the detailed class scheme. We dealt with a question that pertains only to the overall levels of class voting in countries. We thus did not examine the voting behaviour of these detailed classes separately, nor did we investigate the specific trends in the voting behaviour of these different classes. Such class specific trends are of interest, since - as for example supposed for Britain by Heath et al. (1991) - some classes might have started to vote less according to their class interest, while others might have kept the same voting pattern or even started to vote more according to their class interests. These separate class specific trends cannot always fully be detected when investigating the overall levels of class voting. The class dealignment in one class might be surpassed by the class realignment in another class. Therefore, in future studies the focus should not be restricted to overall levels of class voting, but should also be on class-specific voting behaviour. In this way, more detailed research questions can be addressed, such as: To what extent have the service class and the skilled manual class become more similar in their voting behaviour in the Western industrialized over the postwar period?

Another more precise descriptive research questions has been suggested by Hout et al. (1994). When describing the trend in class voting in the United States, they did not only do it in a straightforward way, but they also described the effects of class on people's voting behaviour controlling for the effects of various other characteristics of these people, like their religion, age, and region of residence. They called the outcomes of the controlled and the uncontrolled analyses the net and the gross level of class voting respectively. We consider it worthwhile to investigate the net levels of class voting in future studies. Therefore, we suggest that future studies should address questions like: To what extent were there differences between countries and declines over-time in *net and gross* class voting in Western industrialized countries in the postwar period? Furthermore, questions on class-specific net class voting should be addressed. These

include: To what extent has the voting behaviour of members of the service class and the skilled manual worker class become more similar in the Western industrialized in the postwar period, when controlling for their origin class, religion, union membership?

Explanations of variation in class voting

When we addressed questions pertaining to explanations of variation in class voting at the macro-level, many of the formulated hypotheses were rejected. We claimed then to rephrase the hypotheses, by including individual-level assumptions in the theory. To continue in this line of reasoning, we now suggest rephrasing the explanatory question for future research by taking the individual-level into account. Therefore, future research would benefit from implementing the sociological idea that the immobile are the core members of classes. Thus, when focusing on the effects of social and political characteristics of countries on class voting, the focus should be solely on the (class) voting of immobile class members. Another suggestion for rephrasing the explanatory research questions - also in line with the above suggestions - is by focusing on net class voting, i.e. controlling for relevant non-class characteristics. Thus, possible research questions might be: To what extent would differences across democratic industrialized countries and changes within these countries in the levels of relative net class voting among immobile class members, be explained by differences between these countries and changes within these countries in their social and political characteristics? Addressing such questions requires large individual-level datasets containing information about many characteristics of individual respondents, measured in a comparable way between countries and over-time. It will be a giant but worthwhile task to assemble and analyse such datasets in future studies.

Another challenge for future studies is to find out why in this study we found no effects of variation in intergenerational class mobility between countries on levels of class voting in these countries. We expected that differences between countries and changes over-time in the patterns of intergenerational class mobility, would to some extent explain between-country and over-time variations in levels of class voting. This expectation was based upon the assumption that there was substantial variation in the patterns of class mobility between countries and over-time. We made this assumption on the basis of results of many studies into absolute rates of intergenerational class mobility. Furthermore, it was based upon the assumption that mobile class members had a different voting behaviour compared to immobile class members in these countries. These assumptions were built upon the findings in Chapter 7 of the present study. However, although to

our knowledge these assumptions seem to be correct, in Chapter 9 we found that variation in intergenerational class mobility over countries and periods did not explain any variation in levels of class voting between the countries and periods.

Therefore, future research has to show which of our assumptions have to be adjusted. It might, for example, be that countries differ in their mobility patterns in many ways, but that effects of these various sorts of differences cancel each other out when it concerns the levels of overall class voting. Furthermore, it might be that the acculturation of the mobile to the political climate in their new class takes less time in some countries than in others. Which of the assumptions needs to be revised, remains to be investigated in future research.

Effects of intergenerational class mobility on voting behaviour

When we examined the effects of intergenerational class mobility on individual voting behaviour, we found for some countries that the older intergenerationally mobile persons are, the more they obtain the voting behaviour of their new destination class. To explain this finding, we assumed a process of acculturation, i.e. new class members are assumed to be influenced by their new personal networks which consist of members of their destination class. However, when investigating this, we had to rely on cross-sectional data, i.e. data that did not include information about the history of these persons, or on their personal network. Thus, we could not address research questions like: at what age did mobile persons become members of their new class? How did their individual career look like? In what stage of their career did they have what kind of members in their personal network? To get a good picture of the acculturation process, addressing such questions is vital and deserves attention.

We realize that investigating the effects of class mobility does offer more insight at the individual-level, but probably does not illuminate the relationship between class and voting behaviour at the country-level. Investigations that differentiate between various types of mobile persons might illuminate the voting behaviour of these specific groups, but these groups are too small to end up with significantly better predictions about the levels of class voting at the country-level. However, considering the importance of people's class position in determining their party choice in Western industrialized countries even in current days, it is worth putting such micro-level questions on the agenda of research on social stratification and politics.

Appendix A
Data Sources: Aggregated Data

Class Voting Data

Class voting data were collected from two types of sources: tables published in various articles and books, and tables calculated with data from representative surveys published on tape. The sources of the survey data are presented in Appendix B. The tables published in articles and books come from the following sources:

Australia:	Alford (1963); Baxter et al. (1991); McAllister (personal communication 1992); Rose (1974).
Austria:	Rose & Urwin (1969); Crewe & Denver (1985); Lijphart (1971); Lane & Ersson (1991).
Belgium:	Frognier (1975); Lijphart (1971); Rose (1980).
Britain:	Alford (1963); Heath et al. (1985, 1991); NORC (1948); Rose & McAllister (1986).
Canada:	Alford (1963); Rose (1974); Rose (1980).
Denmark:	Andersen (1984); Lane & Ersson (1991); Rose (1980); Sainsbury (1990).
Finland:	Allardt & Littunen (1964); Allardt & Wesolowski (1978); Berglund (1988); Matheson (1979); Rose & Urwin (1969); Rose (1974).
France:	Converse & Pierce (1986); Dalton (1988); Dalton et al. (1984); MacRae (1967).
Germany:	Dalton (1988); Forschungsgruppe Wahlen (1990); De Jong (1956); Lijphart (1971); Rose & Urwin (1969).
Ireland:	Crewe & Denver (1985); Laver et al. (1987); Rose (1974).
Italy:	Allum (1979); Crewe & Denver (1985); Lijphart (1971); Lipset (1983); Rose (1974); Von Beyme (1985); Rose & Urwin (1969).
Netherlands:	Lijphart (1968).
Norway:	Listhaug (1989); Valen (personal communication 1992).
Portugal:	Lane & Ersson (1991).
Spain:	Gunther et al. (1986); Rose (1980).
Sweden:	Holmberg (1991); Stephens (1981).
Switserland:	Kerr (1987); Lane & Ersson (1991); Rose (1980).
United States:	Alford (1963); Abramson et al. (1990).

Union density

As a measure of union density, we used so-called "gross density rates", the number of union members divided by the size of the labour force, without correcting for union members drawing a pension. Union density data were collected from the following sources: Kjelberg (1983): Australia 1945-1980 (officiell serie, totalt); Belgium, 1947, 1950, 1957-1980 (lontagare, (1)); United States, 1945-1976 (NBER, totalt). Visser (1989) (gross density rates). Visser (1992) (table 1: aggregate union density rates (employed + unemployed + retired (see notes)) column 1988/89: Australia, Austria, Belgium, Denmark, England, France, Germany, Italy, Netherlands, Sweden, Switzerland; column 1980 and 1988/89: United States; column 1970, 1980 and 1988/89: Luxembourg, Canada, Finland, Ireland. Visser (1991): Greece (1977, 1985), Luxembourg (1975, 1981), Portugal (1969, 1975, 1980, 1985), Spain (1976, 1981, 1985). Korpi, 1983: Canada: 1946-1960. Lane et al. 1991: Finland: 1950, 1955, 1960, 1965, 1975.

Income differences

We found no data for income differences between the social classes of our 20 countries. As an approximation we followed tradition (Lane & Ersson 1991) and used measures for a country's overall income distribution. We chose the income share of the highest 20 % as a measure for the income differences in a country. Sources for such income difference data are quite diverse and comparability in the course of time is limited. In general there is a shift from data for individuals to data for households. Methodological studies of income distribution data (Menard 1986, Hoover 1989, Mahler 1989) advise against combining data from different sources. We settled for data from the World Bank (1978-1991). These series commence around 1970. We did away with missing values for the period 1945-1970 by assuming stability in income differences within countries (the Pearson correlation between the mean values for countries in the period 1971-1980 and those in the period 1981-1990 is 0.48, a measure somewhat too low for proper interpolation) and substituting the mean value of a country for 1971-1980. No data were available for Austria, Greece and Luxembourg.

Standard of living

As an indicator of the general standard of living, we took a country's per capita gross domestic product (GDP) in constant dollars and 1985 international prices. Our source was Summers & Heston (1991), covering the 1950-1988 period. In those cases where information was needed for a country during the period 1945-1949, we took its value for 1950. For a country in 1989 and 1990 we took its value for 1988. In the analyses we divided GDP per capita measures by 1000, yielding more manageable parameters.

Intergenerational Social Mobility

For data on a country's mobility pattern we used an updated version of the file reported in Ganzeboom et al. (1989). We calculated the percentage mobile men for each two by two table cross classifying a male's present occupation (manual/nonmanual) with the occupation of his father. Only males between 18 and 64 years were considered. Since data were not available on a year-to-year basis, we went on to calculate the mean for every country for each of the periods 1945-1960, 1961-1970, 1971-1980 and 1981-1990. If no data for a particular country were available in the first and the last period, the value of the adjacent period was taken. If no data were available for the two periods in between, if possible the mean of the adjacent periods was taken. This reduced the number of missing values, but for Greece, Luxembourg and Portugal the missing values are still present in our data set.

Ethnic-linguistic and Religious Heterogeneity

As to ethnic-linguistic and religious heterogeneity, our measure is the fragmentation index as computed by Rae & Taylor (1970). The fragmentation index refers to the probability that two randomly sampled people will belong to different groups. The higher this index, the more heterogeneous a country. We took data for the period 1945-1970 from Taylor & Hudson (1972). For the period 1971-1990 we used Barrett (1982).

Class as a Political Issue

Measures for the prominence of class as a political issue were taken from Lane & Ersson (1991: 291). To create these scores, they apparently used their knowledge of countries' political histories. The higher the score on this predictor, the more prominent class as an issue. Measures for the prominence of class as a political issue were available for the periods 1945-1964 and 1965-1989. For 1990 we used the 1965-1989 data. In Lane & Ersson, data for Australia, Canada, Luxembourg and the USA are missing. Based on our own knowledge of the political histories of these countries, we ourselves gave these countries in the distinguished periods scores on this variable. To obtain better interpretable parameters, in the analyses we did not use Lane & Ersson's 1 to 5 scoring, but recoded ranging from 0 to 4.

Percentage Manual Workers

The tables we used for computing the level of class voting also yielded the percentage of manual occupations held by persons belonging to the labour force.

Summary statistics for the explanatory variables at the country level are shown in Table A.1.

Table A.1. Descriptive statistics for explanatory variables: means (upper figures) and standard deviations (lower figures)

	Std. of living	Income diff.	Perc. manual	Perc. mobility	Rel.-ethn. heterog.	Union density	Class as issue	N. of cases
Australia	9.09	40.78	45.85	37.12	0.70	55.01	1.00	17
	2.92	2.84	12.82	3.45	0.00	2.15	0.00	
Austria	9.39	-	50.46	34.30	-0.63	58.00	0.00	5
	2.22	-	9.21	3.53	0.02	3.07	0.00	
Belgium	10.03	36.00	40.04	28.77	0.31	70.34	1.00	20
	1.14	0.00	3.51	0.31	0.00	5.07	0.00	
Britain	8.51	39.32	52.54	32.37	0.55	46.64	1.00	30
	2.30	0.19	6.31	3.32	0.06	4.07	0.00	
Canada	8.15	40.93	45.46	34.31	1.85	25.60	0.00	13
	2.09	0.25	6.50	1.11	0.03	1.94	0.00	
Denmark	9.05	37.88	42.61	30.07	-1.05	70.81	0.76	29
	2.59	0.53	6.00	2.77	0.04	10.20	0.44	
Finland	7.60	36.96	60.38	36.04	-0.77	58.32	0.80	5
	2.93	0.36	10.62	9.49	0.02	21.65	0.45	
France	9.46	41.92	38.38	33.50	0.15	17.38	0.20	25
	2.76	1.51	4.98	2.31	0.12	3.77	0.41	
Germany	9.64	40.94	42.75	31.15	0.12	38.83	0.16	25
	2.57	2.47	10.55	2.25	0.12	1.64	0.37	
Greece	5.61	-	33.60	-	-1.04	36.51	1.00	10
	0.19	-	9.02	-	0.00	0.24	0.00	

Table A.1. (Continued)

	Std. of living	Income diff.	Perc. manual	Perc. mobility	Rel.-ethn. heterog.	Union density	Class as issue	N. of cases
Ireland	5.93	39.40	53.88	30.01	-1.02	51.93	2.00	18
	0.39	0.00	6.02	0.56	0.00	3.81	0.00	
Italy	9.31	42.71	35.26	34.93	-0.68	49.95	3.95	20
	2.16	1.91	7.00	4.17	0.07	5.30	0.22	
Luxembourg	11.83	-	33.25	-	-0.33	48.23	-	17
	1.37	-	5.12	-	0.00	1.89	-	
Netherlands	9.67	37.43	36.98	32.26	0.30	35.59	1.00	25
	1.79	0.63	5.77	2.02	0.03	4.96	0.00	
Norway	9.67	37.45	47.56	34.84	-1.19	60.15	1.82	11
	3.76	0.61	8.41	1.67	0.04	4.18	0.40	
Portugal	4.99	49.10	50.71	-	-1.17	51.60	1.00	5
	0.35	0.00	5.25	-	0.00	0.00	0.00	
Spain	6.92	40.37	45.92	32.80	-0.14	17.35	2.00	6
	0.44	0.90	6.32	4.90	0.00	3.31	0.00	
Sweden	9.20	37.06	56.28	34.57	-0.56	78.38	0.67	12
	2.55	0.10	5.12	2.46	0.64	10.09	0.49	
Switzerland	13.72	39.65	32.51	35.50	1.20	32.67	1.00	4
	1.35	3.30	9.52	0.00	0.00	2.05	0.00	
United States	14.07	42.05	40.75	37.13	1.31	23.70	0.00	27
	2.95	0.77	7.12	1.83	0.05	5.17	0.00	

Appendix B
Data Sources: Survey Data

For this study we analysed a large collection of relevant population sample data from sixteen countries on different points in time. These datasets have been extracted and collected in one large combine file. This "International Stratification, Mobility and Politics File" consist of a set of extracts from 113 datasets that contain information on intergenerational occupational mobility (father's and respondent's occupation) and politics (voting behaviour). In this file these variables, together with some elementary demographics, are available in comparable and standardized codes. For detailed information on this file, we refer to Nieuwbeerta & Ganzeboom (1995). In this appendix we confine ourselves by giving references to the original files. The names of the files are acronyms: the first three letters represent the country, the first two figures the year the survey took place. The reference numbers refer to the numbers in the catalogues of the data-archivs where the files were stored. These archives are listed at the end of this appendix.

File	Reference
AUS65	SSDA : 7
AUS67	ICPSR: 7282
AUS73	SSDA : 9
AUS79	SSDA : 9
AUS84	SSDA : 423
AUS85i	ICPSR: 8909
AUS86i	ICPSR: 9205
AUS87e	SSDA : 445
AUS87i	ICPSR: 9383
AUS90e	SSDA : 570
AUT74p	ICPSR: 7777
AUT85i	ICPSR: 8909
AUT88i	ZA : 1700
AUT89i	ZA : 1840
BEL75	ESRC : 1577
BRI64e	ICPSR: 7250
BRI66e	ICPSR: 7250
BRI70e	ICPSR: 7004
BRI74e	ICPSR: 7870
BRI79e	ICPSR: 8196
BRI83e	ICPSR: 8409
BRI85i	ICPSR: 8909
BRI86i	ICPSR: 9205
BRI87e	NYM : ENG87e
BRI87i	ICPSR: 9383
BRI88i	ZA : 1700
BRI89i	ZA : 1840
BRI90i	ZA : 1950
CAN84e	ICPSR: 8544
DEN71e	ICPSR: 8946
DEN72s	DDA : 081
DEN75e	ICPSR: 8946
DEN77e	ICPSR: 8946
DEN79e	ICPSR: 8946
DEN81e	ICPSR: 8946
FIN72s	DDA : 081
FIN75p	ICPSR: 7777
FRA78e	ESRC : 1987
GER69e	ICPSR: 7108
GER69f	ICPSR: 7098

File	Reference
GER75p	ICPSR: 7777
GER76z	ZA : 1233
GER77z	ZA : 1233
GER78c	ZA : 1233
GER78x	ZA : 1233
GER79x	ZA : 1233
GER79z	ZA : 1233
GER80a	ZA : 1795
GER80c	ZA : 1233
GER80p	ZA : 1188
GER80z	ZA : 1233
GER82a	ZA : 1795
GER84a	ZA : 1795
GER86a	ZA : 1795
GER87i	ICPSR: 9383
GER88a	ZA : 1795
GER90a	ZA : 1800
IRE89i	ZA : 1840
IRE90i	ZA : 1950
ITA68e	ICPSR: 7953
ITA75p	ICPSR: 7777
ITA85	NYM : ITA85
NET70	ICPSR: 7261
NET71	ICPSR: 7768
NET72e	STEIN: P0353
NET74p	ICPSR: 7777
NET76	STEIN: P0653
NET77e	STEIN: P0354
NET77l	STEIN: P0328
NET79p	ZA : 1188
NET81e	STEIN: P0350
NET82e	STEIN: P0633
NET85s	STEIN: P1012
NET86e	STEIN: P0866
NET87	NYM : NET87
NET89m	NYM : NET89m
NET90s	STEIN: P1100

File	Reference
NOR65e	ICPSR: 7256
NOR72s	DDA : 081
NOR77e	NSD : NOR77e
NOR81e	NSD : NOR81e
NOR85e	NSD : NOR85e
NOR89e	NSD : NOR89e
NOR90e	NSD : NOR90e
SWE72s	DDA : 081
SWE90	NYM : SWE90
SWI72	ICPSR: 7342
SWI76p	ICPSR: 7777
USA56e	ICPSR: 7214
USA58e	ICPSR: 7215
USA60e	ICPSR: 7216
USA64e	ICPSR: 7235
USA66e	ICPSR: 7259
USA68e	ICPSR: 7281
USA70e	ICPSR: 7298
USA72g	ICPSR: 9505
USA73g	ICPSR: 9505
USA74g	ICPSR: 9505
USA74p	ICPSR: 7777
USA75g	ICPSR: 9505
USA76g	ICPSR: 9505
USA77g	ICPSR: 9505
USA78g	ICPSR: 9505
USA80g	ICPSR: 9505
USA82g	ICPSR: 9505
USA83g	ICPSR: 9505
USA84g	ICPSR: 9505
USA85g	ICPSR: 9505
USA86g	ICPSR: 9505
USA87g	ICPSR: 9505
USA88g	ICPSR: 9505
USA89g	ICPSR: 9505
USA90g	ICPSR: 9505

Data References

DDA:081 Allardt, E., H. Uusitalo, *Scandinavian Welfare Survey, 1972.*

ESRC:1577 Bernard, S., S. Delruelle et al., *Belgian Citizen in the Political System, 1975.*

ESRC:1987 Capdevielle, J., E. Dupoirier, G. Grunberg, E. Schweisguth & C. Ysmal, *French National Election Study, 1978.*

ICPSR:7004 Butler, D., & D.E. Stokes, *Political Change in Britain, 1969-1970.*

ICPSR:7098 Klingemann, H.-D., & F.U. Pappi, *German Pre- and Post-Election Study, 1969.*

ICPSR:7108 Kaase, M., U. Schleth, W. Adrian, M. Berger & R. Wildenmann, *German*

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ICPSR:7214 Campbell, A, P. Converse et al., *American National Election Study, 1956.*

ICPSR:7215 Campbell, A, P. Converse et al., *American National Election Study, 1958.*

ICPSR:7216 Campbell, A, P. Converse et al., *American National Election Study, 1960.*

ICPSR:7235 SRC (Survey Research Center, *American National Election Study, 1964.*

ICPSR:7250 Butler, D., & D.E. Stokes, *Political Change in Britain, 1963-1970.*

ICPSR:7256 Valen, H., *Norwegian Election Study, 1965.*

ICPSR:7259 SRC (Survey Research Center, *American National Election Study, 1966.*

ICPSR:7261 Heunks, F. M., M.K. Jennings, W.E. Miller, P.C. Stouthard & J. Thomassen, *Dutch Election Study, 1970-1973.*

ICPSR:7281 SRC (Survey Research Center, *American National Election Study, 1968.*

ICPSR:7282 Aitkin, D., M. Kahan & D.E. Stokes, *Australian National Political Attitudes, 1967.*

ICPSR:7298 CPS (Center for Political Studies, *American National Election Study, 1970.*

ICPSR:7342 Kerr, H., D. Sidjanski & G. Schmidtchen, *Swiss Voting Study, 1972.*

ICPSR:7768 Verba, S., N.H. Nie & J.-O. Kim, *Political Participation and Equality in Seven Nations, 1966-1971.*

ICPSR:7777 Barnes, S.H., & M. Kaase et al., *Political Action: An Eight Nation Study, 1973-1976.*

ICPSR:7870 Crewe, I., B. Saerlvik & J. Alt, *British Election Study: October 1974, Cross-section.*

ICPSR:7953 Barnes, S.H., *Italian Mass Election Survey, 1968.*

ICPSR:8196 Crewe, I., B. Saerlvik & D. Robertson, *British Election Study: May 1979, Cross-section.*

ICPSR:8409 Heath, A.F., R.M. Jowell, J.K. Curtice & E.J. Field, *British Election Study: June 1983.*

ICPSR:8544 Lambert, R.D., S.D. Brown, J.E. Curtis, B.J. Kay & J.M. Wilson, *Canadian National Election Study, 1984.*

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NSD:NOR77e Valen, H. *Norwegian Election Study, 1977.*

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NSD:NOR85e Valen, H. *Norwegian Election Study, 1985.*

NSD:NOR89e Valen, H. *Norwegian Election Study, 1989.*

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NYM:NET87 Hermkens, P.L.J. & P.J. van Wijngaarden, *Criteria for Justification of Income Differences, Netherlands 1987.*

NYM:NET89	Arts, K., E. Hollander, K. Renckstorf & P. Verschuren, *Media-equipment, Media-exposure and Media-use in the Netherlands, 1989.*
NYM:SWE90	Svallfors, S., *Attitudes to Inequality, 1990.*
SSDA:423	Kelley, J.L., R.G. Cushing & B. Headey, *Australian National Social Science Survey, 1984.*
SSDA:445	McAllister, I. & A. Mughan, *Australian Election Survey, 1987.*
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SSDA:7	Broom, L., F.L. Jones & J. Zubrzycki, *Social Stratification in Australia, 1965.*
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STEIN:P0350	Werkgroep Nationaal Kiezersonderzoek, *Dutch Parliamentary Election Study, 1981.*
STEIN:P0353	Werkgroep Nationaal Kiezersonderzoek, *Dutch Parliamentary Election Study, 1972.*
STEIN:P0354	Werkgroep Nationaal Kiezersonderzoek, *Dutch Parliamentary Election Study, 1977.*
STEIN:P0633	Werkgroep Nationaal Kiezersonderzoek, *Dutch Parliamentary Election Study, 1982.*
STEIN:P0653	Hermkens, P.L.J. & P.J. van Wijngaarden, *Criteria for Justification of Income Differences, Netherlands 1976.*
STEIN:P0866	Van der Eijk, C., G.A. Irwin & B. Niemoeller, *Dutch Parliamentary Elections Study, 1986.*
STEIN:P1012	Felling, A.J.A., J. Peters & O. Schreuder, *Social Relevance of Religion in the Netherlands, 1985.*
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ZA:1233	ZUMA (Zentrum fuer Umfragen, Methoden, und Analysen, *ZUMA--Standard Demographie (Zeitreihe), Germany 1976-1980.*
ZA:1700	International Social Science Program (ISSP), *International Social Science Program: Family and Changing Sex Roles, 1988.*
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ZA:1800	ZUMA (Zentrum fuer Umfragen, Methoden, und Analysen, *German Social Survey (Allbus), 1990.*
ZA:1840	International Social Science Program (ISSP), *International Social Science Program: Work Orientations, 1989.*
ZA:1950	International Social Science Program (ISSP), *International Social Science Program: Role of Government II, 1990.*

Data Archives

DDA	Danish Data Archive, Odense, Denmark.
ESRC	ESRC Data Archive, Essex, United Kingdom.
ICPSR	Inter-University Consortium for Political and Social Research, Ann Arbor (MI), USA.
NSD	Norwegian Social Science Data Service, Bergen, Norway.
NYM	Department of Sociology, University of Nijmegen, Nijmegen, The Netherlands.
SSDA	Social Science Data Archive, Canberra, Australia.
STEIN	Steinmetz Archive, Amsterdam, The Netherlands.
ZA	Zentral Archive, Köln, Germany.

Notes

2 Data and operationalizations

1. Lijphart does not qualify Spain, Portugal and Greece under the criterion of a long-term and uninterrupted democracy, but claims that these countries have been democratic since the mid-1970s and are generally judged to be stable and consolidated democracies.
2. With respect to the published data, we had to accept the way respondents were divided into manual and nonmanual class members in these sources.
3. These concern the following datasets:
   - Denmark 1976: Danish Social Welfare study 1976 (DDA 0070);
   - France 1958: G. Dupeux, French Election Study 1958 (ICPSR 7278);
   - Italy 1972: S.H. Barnes, G. Sani, Italian Mass Election Survey 1972 (ICPSR 7954);
   - Italy 1990: International Social Science Program (ISSP): Role of Government II 1990 (ZA 1950);
   - Norway 1969: S. Rokkan, H. Valen, Norwegian Election Study 1969 (NSD NOR69);
   - Switzerland 1987: International Social Science Program (ISSP), Social Inequality 1987 (ICPSR 9383).
4. The codes between bracket are based on Mackie & Rose (1991). The first two digits refer to the country-chapter; the last two digits refer to the specific political party. For information about political parties we also used Day & Degenhardt (1980) and Lane et al. (1991).
5. Large proprietors are included in the service class, where they might appear as a rather anomalous element. However, large proprietors are few in number. Furthermore, large proprietors are not the capitalist elite or captains of industry, but are more like salaried managers (Erikson & Goldthorpe 1992: 40).
6. The log-odds-ratio can be seen as the multiplicative equivalent of the Alford index. The Alford index equals the estimated β_1 coefficient of a linear regression:
   $$\text{Left} = \beta_0 + \beta_1 \text{ Manual class} \quad (1)$$
   where *Left* is coded (1) when voting for a left party and (0) when voting for other parties, and *Manual class* is coded as (1) for manual class workers and (0) for non-manual class workers. The value of the log-odds-ratio equals the value of the estimated β_1 coefficient for an analogous logistic regression:
   $$\log((\pi^*\text{Left})/(1 - \pi^*\text{Left})) = \beta_0 + \beta_1 \text{ Manual class} \quad (2)$$
7. We would like to thank John Goldthorpe for providing us with these tables.

3 Description of manual/nonmanual class voting

1. Part of this chapter is based upon a paper - in collaboration with Wout Ultee - presented at the Annual Meeting of the European Consortium of Political Research in Limerick, 1992, and at the Annual Meeting of the American Political Science Association in

Chicago, 1992 (revised version).

2. To take into account the susceptibility of the Thomsen index to sampling error (see also note 2, Chapter 4), we also estimated for each country separately the parameters of the following logistic multi-level model:

$$\log((\pi^{*}Left_{ijk})/(1 - \pi^{*}Left_{ijk})) = \beta_{0jk} + \beta_{1jk}\,\text{Manual class}_{ijk} + \varepsilon_{ijk} \quad (3)$$

$$\beta_{0jk} = \beta_{00k} + \theta_{0jk} \quad (4)$$

$$\beta_{00k} = \beta_{000} + \theta_{00k} \quad (5)$$

$$\beta_{1jk} = \beta_{11k} + \beta_{211}\,\text{Year of Survey}_{j} + \gamma_{1jk} \quad (6)$$

$$\beta_{11k} = \beta_{111} + \gamma_{11k} \quad (7)$$

where i stands for the individual respondent, j for the year of observation and k for the country. The results of these analyses yielded similar conclusions to the simple linear regression analyses for which results are presented in the text and in Table 3.3 and 3.4. The multi-level analyses were conducted using the ML3 computer program (Prosser et al. 1991). For more information on the advantages of multi-level models over traditional techniques we refer to Chapter 4.

3. Moreover, the correlation between the Alford index and the Thomsen index, leaving out the cases where the percentage of left-wing party supporters is lower than 25 per cent - mainly the Irish cases - turned out to be 0.99.

4 Effects of social and political characteristics of countries on manual/nonmanual class voting

1. This chapter is an adaptation of a paper - in collaboration with Wout Ultee - presented at the Annual Meeting of the European Consortium of Political Research in Limerick, 1992; and at the Annual Meeting of the American Political Science Association in Chicago, 1992 (revised version). A translated version of this chapter is published in the *Sociologische Gids* (Nieuwbeerta & Ultee 1995).
2. In our dataset there is no variation in the percentage mobile within Switzerland and no variation in the union density within Portugal. Therefore, for Table 4.2 and Table 4.4 the pertinent correlations and trend parameters could not be calculated.
3. The standard deviation of the Thomsen index, i.e. the natural logarithm of the odds-ratio, is given by: $(1/x_{11} + 1/x_{12} + 1/x_{21} + 1/x_{22})^{1/2}$, where x_{11} to x_{22} represent the number of respondents in the four cells of a two-by-two table (Fienberg 1980: 18).
4. We thus explain variation in the levels of class voting between years within countries. It is also possible to explain variation between countries within years. The latter way of modelling seems less natural to us.
5. To do this, we specified the following equations at the year-level and at the country-level:

$$\beta_{0jk} = \beta_{00k} + \gamma_{0jk} \quad (4)$$

$$\beta_{00k} = \beta_{000} + \theta_{00k} \quad (5)$$

6. The various predictors outlined are not too strongly correlated. The highest correlation (0.65) is that between mobility and standard of living. The highest correlation but one is that between the percentage of the population in manual jobs and the standard of living: this equals -0.55. Such negligible multicollinearity allows for a multivariate test of our hypotheses. The two highest correlations between the independent variables that are centred around their country means (used in the year-level equation in the multi-level analysis), are that between the percentage of mobility and the standard of living (0.78) and that between the centred percentage in manual jobs and standard of living (-0.58).
7. Analyses were conducted using the ML3 computer program. In ML3, all equations are estimated simultaneously, producing maximum-likelihood estimates of the coefficients (for a more detailed account, see Prosser et al. 1991).
8. To test whether the bivariate results can be replicated when using the multi-level model, we fitted eleven multi-level models like the one described, but including in each model only one of the listed explanatory variables. The coefficients for the uncontrolled bivariate effects of the explanatory variables can be compared with the zero-order correlations reported in Tables 4.1 and 4.2. The estimated coefficients from the bivariate multi-level model make clear that all variables judged significant in the simple zero-order correlational analysis are significant when the data are modelled by a multi-level model. In addition, none of the variables that were not significant are then significant in the multi-level model. Thus, the bivariate multi-level model results replicate those obtained from calculating the zero-order correlations. This outcome is not all that obvious; whereas the coefficients in Tables 4.1 and 4.2 do not take into account the number of individuals observed for one year-country Thomsen index, the coefficients in the bi-variate model do so.
9. We also estimated a model including only variables at the country level and a model including only variables at the year level. The estimated coefficients were very similar to the model presented in the text. Therefore, the conclusions drawn were the same.
10. In the model presented in the text, no covariance terms between the constant and the variable manual were included. To check whether the inclusion of covariance terms would yield different conclusions for our hypotheses tests, we estimated a model containing these covariance terms. The conclusions obtained from the parameter estimates of this model, however, are the same as in the "no-covariance model".
11. In our dataset used for the multi-level analyses (N=287), the correlations of 'Year' with the variables centred around their country means are: standard of living (0.87), percentage manual workers (-0.60), percentage mobile (0.72), and union density (0.22).
12. In some countries, the limited number of cases generated some strange trend parameters for the explanatory variables. Therefore, we also calculated the correlations between the trend parameters, while weighting for the number of cases in each country. These correlations were: class voting with standard of living -0.35 (p=0.07), percentage manual workers 0.00 (p=0.50), percentage mobile -0.04 (p=0.44), and union density -0.46 (p=0.02). Thus, these yielded the same conclusions.
13. We will return to this in the final chapter.

5 Effects of composition of manual and nonmanual classes on manual/nonmanual class voting

1. Part of this chapter is based upon a paper - in collaboration with Nan Dirk de Graaf - presented at the World Congress of Sociology of the International Sociological Association in Bielefeld, 1994. A revised version of this chapter (Nieuwbeerta & De Graaf 1996) will appear in a book titled "The End of Class Politics?" edited by G. Evans.
2. These scholars' arguments primarily concern trends in the levels of class voting across countries. However, since these arguments also have consequences for explaining differences across countries in the levels of class voting, we have generalized their main points.
3. For a recent discussion of rational choice theory and class voting see Weakliem & Heath (1994a) and Mills (1994).
4. In Table 5.3, we collapsed surveys within certain periods. The trends in Table 5.4 are estimated on the basis of the separate year tables. For this reason, the obtained trend figures of Table 5.4 do not necessarily match the patterns in Table 5.3. The trends reported in Table 5.4 give more accurate information on whether trends occurred in the composition of the manual and nonmanual class, than does the information in Table 5.3.
5. An example may make this procedure clearer. If we would have calculated the Thomsen index for Australia in the period 1961-1970 - assuming constant voting behaviour for the EGP classes across countries and time - we would have used the average voting behaviour from the bottom row in Table 5.2 and the class distribution from the first row in Table 5.3. Then calculations would have shown that - under this assumption - in the manual class (56.9 *38.4 + 55.3*56.2 + 43.4*5.3)/100, or 55.2 per cent voted for a left-wing party, and in the nonmanual class (40.6*21.5 + 32.6*48.8 + 29.8*8.7 +18.3*20.9)-/100, or 31.1 per cent. This would have resulted in a Thomsen index (for column B) of log(((55.2/(100-55.2))/((31.1/(100-31.1))), or 1.02. However, in the analyses reported in column B in Table 5.5 we used data on the class distribution per year instead of per decade, but the procedure is the same.
6. All unstandardized effect parameter estimates differ significantly from zero at the 0.05 level.
7. In all countries, but in Australia and Italy, the unstandardized effects differ significantly from zero at the 0.05 level. In Austria the estimated effect of "Thomsen index: Vote constant" is insignificant. In Italy both effect estimates are insignificant.

6 Description of EGP class voting

1. This chapter is a revised version of a paper presented at the Bi-annual Meeting of the Dutch Sociological Association, Amsterdam, 1994.
2. For Belgium and Denmark the reference category is formed by a mixture of unskilled manual class workers and agricultural labourers.
3. One could argue that our detailed class scheme also enables us to distinguish between *class specific* processes of dealignment or realignment. For example, it is possible that

the distances between the service class and the skilled manual class become smaller, while at the same time the distances between the service class and the farmers grow. In this study, however, we focus on the *overall change* in levels of class voting and leave the class specific dealignment and realignment processes for future research (see also Chapter 10).

4. In order to fit the models we used GLIM and the GLIM macros as developed by Robert Erikson. We thank him for making available these macros, and John Hendrickx and Clive Payne for helping to adjust the macros to our data.
5. It is, of course, interesting to investigate the existence of certain clusters of countries with strong and less strong trends. However, we regard it informative to compare the levels and trends in EGP class voting in all the countries with the levels and trends in manual/nonmanual class voting. Furthermore, to determine which country belongs to which cluster would require the comparison of a very large number of nested models. The large amount of computer time it takes to estimate the parameters of a single model, i.e. about 24 hours CPU time, therefore was another reason we did no go into this kind of analysis.
6. The β_{0jk} parameters are not presented in this table, because they are of limited interest since our concern is with class differences in voting behaviour and not with the absolute popularity of left-wing parties.
7. Thus, indirectly these results for Finland and Ireland confirm our research strategy of analysing many datasets for the countries under investigation.
8. The Pearson correlation between the entries in the first and the second main column is 0.98 (N=11, p=0.000).
9. The Pearson correlation between the entries of Tables 3.3 and 3.4 is 0.68 (N=11, p=0.011).

7 Effects of individual intergenerational class mobility on voting behaviour

1. Part of this chapter is based upon an article published in the American Journal of Sociology on the effects of class mobility on political preferences in four countries (De Graaf, Nieuwbeerta & Heath 1995).
2. Evidence on the existence of such countermobility is given by - among others - Girod (1971) and Goldthorpe (1980).
3. Ideally, we would have liked to have tested the hypothesis "The voting behaviour of mobile people that have been a long time in their class of destination will be closer to the typical voting behaviour of this class relative to that of their class of origin, than will the voting behaviour of mobile people who have been a short period in their class of destination". However, no information on respondent's mobility careers was available in our data. Nevertheless, knowing that most intergenerational class mobility takes place at a relatively early stage of the occupational career with little occurring between the broad classes which we have identified after the age of 35 (Goldthorpe 1980: 69-71), the hypothesis formulated in the text forms a suitable alternative.
4. We would like to add that this hypothesis is not just the prediction that voting behav-

iour will be a weighted average between origin and destination. The literature on social mobility and political preference often suggests that voting behaviour is not just a weighted average between class of origin and class of destination, but that due to the 'shock of mobility' (comparable to the often-assumed status inconsistency effect) mobility has an extra independent effect. Turner (1992) labelled this the effect of mobility per se. The literature elaborating on such a mobility hypotheses, however, is rather vague and lacks precision. This can be illustrated by the recent work of Kelley (1992) which states that mobile persons "*may* not be fully at home, nor fully excepted, in either class. This *might* lead to alienation and anomie, and *perhaps* to disenchantment with the social order and support for radical change. *Or* it might lead to extremism of the Left *or* the Right, according to the historical *circumstance*. ..... Thus there are many reasons to think that there is *something* more to social mobility than merely class of origin and present class position, that there is *something* to the experience of *mobility per se*." (1992: 32; italics ours). We feel that our status maximization hypothesis is a more specific hypothesis on mobility effects.

5. For a comparison of diagonal models with the conventional ones see Hendrickx et al. (1993). For an application of these models in the case of a multinomial dependent variable see Nieuwbeerta & Wittebrood (1995).
6. These models are also known as diagonal reference models (De Graaf & Ganzeboom 1990; De Graaf 1991; Clifford & Heath 1993).
7. Sobel's original model was designed for ordinal dependent variables. Because we have to deal with a binomial dependent variable (left-wing versus right-wing) we fitted instead of Sobel's original model a logistic version of that model.
8. We assumed the restriction that $0 \leq p \leq 1$. The parameter p, however, does not have this restriction in the estimating procedure. In order to get the best fit of the data in the iterative procedure p might go higher than one or lower than zero. The diagonal reference models do not offer the appropriate design when p does not fit in the 0-1 interval. However, this only arose for Canada, as the figures in Table 7.4 show.
9. We also fitted a dummy variable for each year instead of for each period. Using a dummy for each year, however, results in a large number of parameters. Since the reduction of these parameters by applying five year periods did not change our results significantly we preferred to apply these periods.
10. See note 8.

8 Contextual effects of intergenerational class mobility on voting behaviour

1. This chapter is an adaptation of a paper presented at the World Congress of Sociology in Bielefeld, 1994. Part of this chapter is also based upon an article published in the American Journal of Sociology on the effects of class mobility on political preferences in four countries (De Graaf, Nieuwbeerta & Heath 1995).
2. The multi-level analyses were conducted using the ML3 computer program (Prosser et al. 1991).

9 Macro-effects of intergenerational class mobility on class voting

1. This chapter was presented at a colloquium at the Department of Sociology of the University in Nijmegen, 1994.
2. Note that the presented voting figures in Tables 9.1, 9.2 and 9.3 should be the same as the corresponding figures in Tables 5.2 and 6.1. It is only due to rounding errors resulting from the calculations that some are not.
3. See note 2.
4. The Thomsen and kappa index for the presented (and rounded) log-odds-ratios yield slightly different values. However, we prefer to present the figures based on the unrounded log-odds-ratios.
5. Note that this equation is similar to the parametrization of the diagonal mobility models as developed by Sobel (1981, 1985), and as applied in Chapter 7.
6. Although we regard analysing the outcomes of the counterfactual analyses with the model discussed as substantively more appropriate, following Erikson (1990) we also analysed the outcomes of the counterfactual analyses by a simple analysis of variance. The results of these later analyses confirmed the conclusions drawn in this chapter. Only a very small percentage - if any - of variance in class voting was accounted for by variation in mobility patterns. For example, analysis of variance applied to the entries of Tables 9.5 and 9.7 yield that variation between the mobility patterns accounts for respectively 8 and 2 per cent of the total variation, and variation between the voting patterns accounts for 58 and 96 percent (leaving 35 and 2 percent of the variation to interaction).

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Samenvatting

In bijna alle industriële landen waar burgers het recht hebben te stemmen bij verkiezingen, is hun sociale positie - in het bijzonder hun klasse - een belangrijke determinant van hun stemgedrag. Omdat mensen in de lagere sociale klassen meer geneigd zijn op een linkse politieke partij te stemmen dan mensen in de hogere klassen, kan gesproken worden van een "democratische klassenstrijd".

De onderhavige studie richt zich op deze democratische klassenstrijd door drie soorten vragen te beantwoorden naar de relatie tussen klasse en stemgedrag in twintig democratische industriële landen. Deze vragen zijn - hoewel diverse malen eerder gesteld - tot dusverre niet adequaat beantwoord. Allereerst zijn beschrijvingsvragen gesteld naar de sterkte van de relatie tussen klasse en stemgedrag in Westerse industriële landen in de naoorlogse periode. Ten tweede zijn verklaringsvragen gesteld om de verschillen tussen landen en de ontwikkelingen in die landen in deze sterkte te verklaren. Ten derde concentreert deze studie zich op vragen naar de effecten van intergenerationele klasse mobiliteit op individueel stemgedrag.

Bij het beantwoorden van deze drie soorten vragen is voortgebouwd op een lange geschiedenis van onderzoek naar sociale stratificatie en politiek. Deze geschiedenis kan worden verdeeld in drie generaties. Gedurende deze generaties is aanzienlijke vooruitgang geboekt in de formulering van onderzoeksvragen, de toegepaste meetprocedures, de dataverzameling en de analysemethoden. In studies van de eerste generatie zijn relatief vage onderzoeksvragen beantwoord door tabellen te analyseren die gebaseerd waren op een beperkte hoeveelheid gegevens en op eenvoudige klasse indelingen. In studies van de tweede generatie zijn preciezere vragen gesteld en werden antwoorden veelal verkregen door gegevens te analyseren met lineaire regressie technieken. Studies van de derde generatie stelden nog preciezere onderzoeksvragen en beantwoorden deze aan de hand van gedetailleerde en gestandaardiseerde klassen schema's, gegevens van grootschalige (internationaal) vergelijkbare onderzoeken en niet-lineaire onderzoektechnieken. Om in onderhavige studie voort te bouwen op deze ontwikkelingen, zijn klassieke vragen die in alle drie generaties zijn gesteld, precies geformuleerd en is gebruik gemaakt van gedetailleerde meetprocedures, geavanceerde analysetechnieken en dataverzamelingen die voornamelijk uit de derde generatie voortkomen.

Data en operationalisering

De gegevens die geanalyseerd zijn in deze studie komen van twee dataverzamelingen. De eerste dataverzameling bestaat uit gegevens van twintig Westerse industriële democratische landen - alle West-Europese landen, Australië, Canada en de Verenigde Staten van Amerika - in de periode 1945-1990. Deze dataset bevat gegevens over de verschillen in stemgedrag tussen arbeiders en niet-arbeiders en gegevens over de sociale en politieke situatie in die landen. De tweede dataverzameling bevat gegevens van individuen uit 113 nationaal representatieve studies die zijn gehouden in zestien van de genoemde twintig landen in de periode 1956-1990. Voor Griekenland, Luxemburg, Portugal en Spanje zijn geen individuele gegevens opgenomen. Het gebruik van beide grote dataverzamelingen in deze studie geeft de mogelijkheid betrouwbare antwoorden te verkrijgen op de gestelde onderzoeksvragen en reduceert de kans om hypothesen te verwerpen die in werkelijkheid juist zijn.

Om de klassepositie van mensen te meten zijn twee procedures gebruikt. Allereerst is het traditionele arbeider versus niet-arbeider onderscheid gehanteerd. Daarnaast is een klasse schema gebruikt dat is ontwikkeld door Erikson, Goldthorpe en Portocarero, het zogenaamde "EGP" klasse schema. Dit EGP schema is gedetailleerder en onderscheidt zeven klassen. Binnen de arbeiders wordt een onderscheid gemaakt tussen ongeschoolde, geschoolde en agrarische arbeiders. Binnen de niet-arbeiders worden de service klasse managers, routine hoofdarbeiders, kleine zelfstandigen en boeren onderscheiden.

Om de sterkte van de relatie tussen klasse en stemgedrag te meten zijn diverse maten gehanteerd. Allereerst is de traditionele maat voor de sterkte van deze relatie, de Alford index, gebruikt. Deze index geeft het absolute verschil aan tussen het percentage arbeiders dat stemt op een linkse politieke partij en het percentage niet-arbeiders dat stemt op een linkse partij. Daarnaast is een maat voor het relatieve verschil in stemgedrag gebruikt, namelijk de log-odds-ratio. Deze log-odds-ratio, die Thomsen index is genoemd, is de natuurlijke logaritme van de ratio van de odds voor arbeiders om op een linkse dan wel rechtse partij te stemmen en de overeenkomstige odds voor niet-arbeiders. Verder zijn maten gehanteerd voor de sterkte van de relatie tussen klasse en stemgedrag wanneer meerdere sociale klassen worden onderscheiden.

Beschrijving van de sterkte van de relatie tussen klasse en stemgedrag

Sinds het begin van onderzoek naar de relatie tussen klasse en stemgedrag hebben

studies laten zien dat de sterkte van deze relatie verschilt tussen landen. Daarnaast hebben diverse onderzoeken laten zien dat de sterkte van deze relatie in de meeste landen is afgenomen sinds de tweede wereldoorlog. Deze conclusies komen met name uit studies van de eerste generatie, waarin de Alford index is gebruikt om de sterkte van de relatie tussen klasse en stemgedrag te meten. Later zijn echter twijfels geuit over deze conclusies. In studies van de derde generatie is gesteld dat de gevonden verschillen in Alford indices niet alleen veroorzaakt kunnen zijn door verschillen in de sterkte van de relatie tussen klasse en stemgedrag, maar ook door verschillen in de algemene populariteit van politieke partijen. Daarnaast zouden verschillen in Alford indices veroorzaakt kunnen worden door verschillen in de compositie van de arbeidersklasse en de niet-arbeidersklasse. Onderzoekers van de derde generatie veronderstelden daarom dat beschrijvingen van de sterkte van het verband tussen klasse en stemgedrag tot andere conclusies zouden kunnen leiden, wanneer maten worden gebruikt die relatieve verschillen in stemgedrag tussen meerdere klassen vaststellen.

In de onderhavige studie is de houdbaarheid van deze veronderstelling onderzocht. Hiervoor is de sterkte van het verband tussen klasse en stemgedrag beschreven met de Alford index, de Thomsen index en met maten die het verschil in stemgedrag tussen EGP klassen samenvatten. Deze verschillende analyses leveren gelijke conclusies op. Er bestaan belangrijke verschillen in de sterkte van de relatie tussen klasse en stemgedrag tussen democratische industriële landen in de naoorlogse periode. Van alle onderzochte landen is in de Scandinavische landen en in Brittannië het sterkste verband aanwezig, en in de Verenigde Staten en in Canada het zwakste. Verder is in een groot aantal landen de sterkte van het verband tussen klasse en stemgedrag afgenomen in de naoorlogse periode. De afname is het grootst in de Scandinavische landen, gevolgd door Duitsland en Brittannië. In Canada, Ierland, Luxemburg, Nederland en Zweden heeft geen systematische substantiële afname in de sterkte van het verband tussen klasse en stemgedrag plaatsgevonden. Het feit dat de verschillende analyses dezelfde conclusies opleveren, houdt - zoals we later nog zullen aangeven - echter niet in dat de veronderstellingen van de onderzoekers van de derde generatie onjuist waren.

Verklaringen voor verschillen in de sterkte van het verband tussen klasse en stemgedrag

In deze studie zijn drie verklaringen onderzocht voor de variatie tussen landen en tussen tijdstippen in de sterkte van het verband tussen klasse en stemgedrag. De eerste verklaring, die direct te maken heeft met de hierboven genoemde beschrij-

vingen van de sterkte van dit verband, heeft betrekking op de samenstelling van de arbeiders- en de niet-arbeidersklasse in een land op een bepaald tijdstip. Deze compositie verklaring veronderstelt dat verschillen tussen landen en tijdstippen in de mate waarin de arbeiders en de niet-arbeidersklasse in stemgedrag van elkaar verschillen, (in zekere mate) verklaard kunnen worden door verschillen tussen deze landen en tijdstippen in de compositie van de arbeiders- en de niet-arbeidersklasse. Deze verklaring is diverse malen gesuggereerd door onderzoekers van de derde generatie, maar nooit direct getoetst. Om deze verklaring te toetsen is in deze studie gebruik gemaakt van de gegevens van de individuele dataset. Hierbij is verondersteld dat binnen de arbeiders- en niet-arbeidersklasse relevante subklassen op basis van het EGP klasse schema kunnen worden onderscheiden.

De toetsing van deze compositie verklaring heeft uitgewezen dat ongeveer een kwart van de verschillen tussen democratische industriële landen in de mate waarin arbeiders en niet-arbeiders verschillen in stemgedrag, verklaard kunnen worden door verschillen tussen die landen in de samenstelling van de arbeiders en niet-arbeidersklasse. Daarnaast kan ongeveer een vijfde van de veranderingen binnen deze landen in de mate waarin de arbeiders en niet-arbeiders verschillen in stemgedrag worden verklaard door veranderingen in de compositie van de arbeiders en niet-arbeidersklasse. Deze resultaten betekenen een bevestiging van de compositie verklaring, maar laten tevens zien dat het grootste deel van de verschillen tussen landen en perioden in de mate waarin arbeiders en niet-arbeiders verschillen in stemgedrag, worden veroorzaakt door (echte) verschillen in het stemgedrag van de klassen.

De tweede verklaring voor verschillen tussen landen en veranderingen binnen die landen in de sterkte van het verband tussen klasse en stemgedrag, betreft de effecten van sociale en politieke kenmerken van landen. Hypothesen over de effecten van deze landen kenmerken zijn zowel in studies van de eerste als van de derde generatie diverse malen gesuggereerd, maar zijn echter veelal vaag geformuleerd en niet onderworpen aan sterke empirische toetsingen. In onderhavige studie zijn daarom verschillende hypothesen geformuleerd en getoetst met gegevens van de landen dataset.

De toetsingen van de hypothesen resulteren in enigszins verschillende conclusies voor verschillen tussen landen en ontwikkelingen binnen landen in de sterkte van het verband tussen klasse en stemgedrag. De verschillen tussen landen blijken in zekere mate verklaard te kunnen worden door verschillen in religieuze en etnische diversiteit tussen de landen en door verschillen in vakbondsdichtheid tussen de landen: des te kleiner de religieuze en etnische diversiteit en des te groter de vakbondsdichtheid in een land, des te sterker is de relatie tussen klasse en stemgedrag in dat land. Verschillen tussen landen in inkomensongelijkheid, de

relatieve omvang van de arbeidersklasse, de algemene levensstandaard en de mate waarin klasse-tegenstellingen in de politiek aanwezig zijn, blijken geen rol te spelen. Wel is een effect - in onverwachte richting - gevonden van de mate van intergenerationele mobiliteit: des te groter het percentage intergenerationeel mobiele personen in een land, des te sterker is het verband tussen klasse en stemgedrag in dat land.

De veranderingen binnen landen in de sterkte van het verband tussen klasse en stemgedrag kunnen in zekere mate worden verklaard door veranderingen in de algemene levensstandaard: des te hoger de levensstandaard in een land wordt, des te zwakker wordt het verband tussen klasse en stemgedrag. Daarnaast bleek een (sterkere) toename in het percentage vakbondsleden in een land te leiden tot een (sterkere) afname in de sterkte van het verband tussen klasse en stemgedrag in dat land. Dit wordt voornamelijk veroorzaakt doordat in sommige landen een algemene toename in vakbondslidmaatschap gepaard gaat met een relatief sterke toename in het percentage vakbondsleden onder niet-arbeiders.

Een derde verklaring voor verschillen tussen landen en perioden in de sterkte van het verband tussen klasse en stemgedrag betreft de zogenaamde macro-effecten van intergenerationele klasse mobiliteit. Deze verklaring heeft een lange traditie in studies naar stratificatie en politiek. Sombart wees er bijvoorbeeld al op in zijn klassieke studie naar het ontbreken van het socialisme in de Verenigde Staten. Omdat in eerdere studies niet voldoende gedetailleerde en internationaal vergelijkbare gegevens over mobiliteit en stemgedrag van klassen beschikbaar waren, zijn tot dusverre geen serieuze toetsingen van deze verklaring verricht. Met behulp van de individuele dataset, die gegevens bevat van individuen in zestien landen voor de periode 1956-1990, is in onderhavige studie deze verklaring getoetst.

Ondanks het grote aantal studies waarin gesuggereerd is dat er een macro-effect van intergenerationele mobiliteit bestaat op de sterkte van het verband tussen klasse en stemgedrag in een land, blijkt echter dat verschillen tussen landen en perioden in de sterkte van dat verband niet kunnen worden verklaard door verschillen in patronen van intergenerationele klasse mobiliteit tussen die landen en perioden. Dit blijkt zowel het geval wanneer onderscheid wordt gemaakt tussen arbeiders en niet-arbeiders, als wanneer zeven EGP klassen worden onderscheiden.

Effecten van klasse mobiliteit op individueel stemgedrag

Behalve dat in deze studie de macro-effecten van intergenerationele mobiliteitspatronen op de sterkte van het verband tussen klasse en stemgedrag in een land zijn

onderzocht, zijn ook de effecten van intergenerationele klasse mobiliteit op individueel stemgedrag nagegaan.

Allereerst zijn de effecten onderzocht van individuele intergenerationele klasse mobiliteit op het stemgedrag van intergenerationeel mobiele individuen. Deze effecten zijn al in studies van de eerste en tweede generatie onderzocht, maar in deze studies is dit voornamelijk gedaan door het bekijken van percentages in tabellen die gebaseerd waren op een klein aantal respondenten of door het toepassen van inhoudelijk ongeschikte lineaire regressie modellen. In de onderhavige studie zijn de effecten van mobiliteit op individueel stemgedrag onderzocht op een wijze die karakteristiek is voor studies van de derde generatie. De houdbaarheid van verschillende hypothesen is onderzocht door met niet-lineaire modellen gegevens te analyseren van de individuele dataset.

Uit deze analyses blijkt dat in alle landen - behalve Canada - het stemgedrag van de intergenerationeel mobiele personen zich bevindt tussen het kenmerkende stemgedrag van hun bestemmingsklasse en dat van hun oorspronkelijke klasse. De uitkomsten van de analyses laten verder zien dat in deze landen het effect van de bestemmingsklasse groter is dan het effect van de oorsprong klasse. Daarnaast blijkt in zeven landen - Brittannië, Denemarken, Duitsland, Finland, Nederland, Oostenrijk en de Verenigde Staten - het stemgedrag van oudere intergenerationeel mobiele personen dichter bij het kenmerkende stemgedrag van hun bestemmingsklasse te liggen, dan dat van jongere intergenerationeel mobiele personen. Voor intergenerationeel mobiele personen van 18 jaar is het effect van de oorspronkelijke klasse ongeveer even groot als het effect van de bestemmingsklasse. Voor mobiele personen van 65 jaar is het effect van de bestemmingsklasse daarentegen twee maal zo groot als dat van de oorspronkelijke klasse. Voor de oudere respondenten blijft hun oorspronkelijke klasse echter een substantieel effect behouden op hun stemgedrag. De analyses wijzen verder uit dat personen die opwaarts mobiel zijn zich niet meer richten op het kenmerkende stemgedrag van hun bestemmingsklasse, dan personen die neerwaarts intergenerationeel mobiel zijn.

Naast de effecten van individuele intergenerationele klasse mobiliteit zijn in deze studie ook contextuele effecten van mobiliteit op individueel stemgedrag onderzocht. Met name in studies van de eerste generatie zijn hypothesen over deze contextuele effecten veelvuldig geformuleerd. Op basis hiervan zijn in onderhavige studie twee hypothesen opgesteld. De eerste luidt: Des te groter de mate van instroom in een klasse uit linkse klassen, des te groter is de kans dat immobiele personen in die klasse stemmen op een linkse politieke partij. De tweede hypothese luidt: Des te groter de mate van uitstroom in een klasse naar linkse klassen, des te groter is de kans dat immobiele personen in die klasse stemmen op een linkse politieke partij. Om deze hypothesen te toetsen zijn gegevens van de

individuele dataset geanalyseerd. Hierdoor was informatie beschikbaar over een groot aantal individuen in zeven klassen in zestien landen en in verscheidene jaren, en dus in vele contexten. Bij het analyseren van deze gegevens zijn echter geen significante contextuele effecten gevonden van de mate van intergenerationele klasse mobiliteit op het stemgedrag van de intergenerationeel immobiele personen in de diverse sociale klassen.

Curriculum Vitae

Paul Nieuwbeerta was born in Utrecht, the Netherlands, on January 26, 1964. He graduated from Gymnasium-B in 1982. Subsequently, he studied Public Administration at the University of Twente in Enschede, and obtained his Masters degree (doctoraal) in 1988. Next, he studied at the Teachers College of the University of Utrecht, and obtained a teaching degree in both Civic Education and Economics in 1990. From 1990 until 1994 he worked on a Ph.D project at the Department of Sociology at the University of Nijmegen, which resulted in this doctoral thesis. This project was funded by the Netherlands Organization for Scientific Research (NWO). Since January 1995 Paul Nieuwbeerta works as a researcher at the Department of Sociology, University of Utrecht on the NWO funded project 'The intergenerational transmission of cultural and material status in Eastern Europe'.

The Democratic Class Struggle in Twenty Countries

1945 / 1990

It is well known that people's class position affects their voting behaviour. This 'democratic class struggle' occurs in all Western industrialized democracies. However, the strength of the relationship between class and voting behaviour differs from country to country, and in many the strength of that relationship has declined. This study analyses the levels of class voting in the various Western industrialised countries in the postwar period. In addition, it tests three specific explanations for variations in these levels between countries and periods of time. Moreover, attention is paid to the relationship between intergenerational class mobility and individual voting behaviour in these countries. For this purpose a large number of data on twenty western industrialised nations were collected and analysed.

PAUL NIEUWBEERTA (1964) studied Public Administration at the University of Twente. He conducted the present study at the Department of Sociology of the University of Nijmegen in the Netherlands. Currently he is engaged in post-doctoral research at the Department of Sociology of the University of Utrecht in the Netherlands.

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