Rain falls on all of us (but some manage to get more wet than others) : political context and electoral participation

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2.1 Introduction
As discussed in Chapter 1, this research examines the interplay between contextual and individual level characteristics on the individual voters’ decision to participate in an election. The current chapter takes the first step in this undertaking, and investigates the possible benefits of adding contextual information to a model aimed at explaining individual behavior. It will be shown that adding contextual information to a model containing individual level information increases the predictive quality of a model considerably. In addition, it will be argued that the approach taken in this chapter is insightful as an initial exploration of context effects, but nevertheless ultimately insufficient in showing the true influence of contextual effects on individual voters.

In this chapter, an empirical analysis will be presented based on individual level data collected for parliamentary elections in the Netherlands. The case of the Netherlands is presented as an example; there is no reason to expect the Dutch political system to be a special case where contextual characteristics have a particularly large or small influence on the electorate. It is simply a country where sufficient comparable individual level data is available. Through the Dutch Parliamentary Election Studies (DPES), individual level data for nine parliamentary elections is available to us for the period of 1971-1998. Contextual level data, describing the characteristics of the parliamentary elections is sufficiently available, so that the analyses will examine electoral participation in the Netherlands for the last three decades of the twentieth century.

The electoral system in the Netherlands is a proportional representation system, with the electoral quotient as the only threshold. This implies that the effective electoral threshold is a relatively low 0.66 percent of the vote as the total number of seats in the Lower House is 150. Although not formally, with regards to the division of seats the Netherlands is effectively a single constituency system, which ensures that the theoretical electoral threshold of 0.66 percent is close to the actual effective threshold. As a consequence, the Dutch system is a multi-party system where typically between 8 and 15 parties are represented in parliament. Since the 1970s, however, the period studied in this chapter, three to four parties tend to dominate the party landscape and are commonly referred to as ‘the large parties’. These are the liberal (right-wing) VVD, the Christian-democratic (center) CDA and the labor (left-wing) PvdA. The fourth member of this set is the (left-liberal) D66, which is often placed ideologically between the CDA and PvdA, although its unstable electoral appeal has made its membership of the ‘big parties’ set unwarranted at times. As a consequence of the Dutch electoral system and its multi-party landscape, coalition government is unavoidable in the Netherlands. No single party stands a chance of winning a parliamentary majority and the
coalition negotiations are an unavoidable consequence of any election, as pre-election coalition agreements are rare.

Table 2-1  The Netherlands - Turnout Figures for Parliamentary Elections, 1971-1998 (percentages)

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<tbody>
<tr>
<td>Turnout</td>
<td>79.1</td>
<td>83.5</td>
<td>88.0</td>
<td>87.0</td>
<td>81.0</td>
<td>85.8</td>
<td>80.3</td>
<td>78.7</td>
<td>73.0</td>
</tr>
</tbody>
</table>

Table 2-1 presents the turnout rates for national elections in the Netherlands from 1971 until 1998. It shows us that turnout in the Netherlands on average varies somewhere around the 82 percent mark - a relatively high figure compared to other western democratic systems (cf. Franklin, 2002). However, we also see that considerable between-election variation in turnout exists, with a high of 88 percent and a low of 73 percent. As argued in Section 1.3 of Chapter 1, it is not likely that these turnout fluctuations can be explained at the individual level. Individual characteristics such as education or political interest can vary between elections, but variation to such a degree that turnout levels will be affected is unlikely to occur unless affected by an outside influence. The variation in turnout levels of Table 2-1 suggests that contextual factors - outside influences - are at work, affecting the level of electoral participation in the Netherlands. The aim of this chapter will be to identify these contextual factors, and determine their influence on individual voters.

2.1.1  Explaining Dutch Electoral Participation

To assess the influence of individual and contextual characteristics on electoral participation in the Netherlands empirically, we will analyze the behavior of voters in parliamentary elections the last three decades of the twentieth century, as described in Table 2-1. We will start with a brief overview of the factors that have proved to be of importance in explaining electoral participation in the Netherlands.

The notions of facilitative and motivational factors influencing electoral participation have already been introduced in Chapter 1 (Cf. Milbrath & Goel, 1979; see also Verba & Nie 1972; Oppenhuis 1995). Individual characteristics as well as contextual characteristics can influence the ease with which a voter may cast the ballot, in other words facilitate the act of voting. Individual and contextual characteristics can also influence a voters’ incentive to participate, and thus affect the motivation - both positively and negatively - to go out and vote. As will become apparent below, while the facilitative or motivational effect of factors may be clearly distinguished theoretically, in actual empirical research many variables have both a facilitative as well as a motivational effect. Although this may appear confusing at first, it need not be an obstacle to the analysis. Rather, the various effects of variables may help the reader to recognize that the simple act of voting is in the end not so simply explained.

Although the analytical methods and aims differ, a number of comparable results are found. These indicate that the chance of voting increases with age and religiosity, as well as with income, education and class. Less consistent in their influence are the gender and occupation variables, the influence of which is often found to be dependent on the other characteristics controlled for. Next to these socio-demographic characteristics, political interest and involvement have a strong positive influence on turnout.

Contextual effects have not been widely used in research on national elections in the Netherlands\(^2\). Jaarsma et al. (1986), Schram (1989) and De Graaf (1996) use dummy indicators to identify the separate election years in an aggregate analysis. This approach allows election-related variance to be detected. However, the source of this variation cannot be clarified: dummy indicators do not identify what may explain the variance detected. By introducing theoretically interpretable contextual variables, improvement over the nominal level information (and, indeed, proper name characteristic) of year-dummies is made. This is in line with Przeworski and Teune (1970), who propose using theoretical constructs, rather than nominal labels in comparative social research.

Whether, and if so how, individual and contextual influences interact is a matter that will be investigated in this chapter. Individual voters, with all of their individual characteristics, live and vote within the context of their political system. In the absence of any relation between contextual and individual characteristics, the estimates of the effects of contextual characteristics will be constant for all voters. However, as argued already, this is not expected to be the case. To determine whether the impact of a contextual characteristic varies between groups of voters, interaction terms between context and individual characteristics will therefore be introduced into the model. If these interactions prove statistically significant, they indicate that the influence of contextual characteristics varies across individuals.

### 2.2 A Model Incorporating Individual and Contextual Characteristics

An empirical model examining the influence of individual and contextual influences simultaneously requires data on the behavior of individual voters under different circumstances. To this end, DPES surveys held in concurrence with parliamentary elections in the Netherlands from 1971 to 1998 were combined, yielding a coded dataset that contains information on a large number of individuals under varying contextual circumstances\(^3\). Such a combination of surveys allows us to assess the influence of contextual characteristics on different groups of individuals, and to determine whether a certain factor exerts equal influence for all voters or whether it is especially strong for some, while less consequential for others.

#### 2.2.1 Contextual Characteristics

The characteristics of the context that will be entered into the analytical model will refer to three theoretical notions. First, it is expected that a voter is more likely to participate if their

\(^{2}\) Indeed, even in a recent study on explanations of an alleged trend of ever lower turnout rates in the Netherlands, Dekker et al. (2002) state explicitly that their research will not focus on contextual (systemic) characteristics.

\(^{3}\) See the Appendix for documentation on the datasets used.
awareness of the election increases. To vote, a voter needs to be aware that an election will take place. The amount of information available concerning the election is expected to affect electoral participation. Contextual factors that affect the amount of information available through, for example, media coverage of the election, are therefore expected to affect the voters' awareness of the election, and hence electoral participation.

Second, it is expected that voters are more likely to participate if the outcome of the election is more consequential, in other words, if more is at stake. If the outcome of the election will be a long and confusing series of coalition negotiations this is less likely to induce electoral participation than clear government alternatives, in which the voters decides between one or the other.

Thirdly, voters are expected to participate in greater numbers if the likelihood to affect the outcome of the election increases. A close election race, in which each vote could make the difference, is more likely to make voters participate than an election race that is a foregone conclusion.

A large number of factors can influence the awareness or the consequences of an election, some structural and some more election-specific. Selecting suitable variables for empirical analysis is therefore a difficult task, and idiosyncrasy should be avoided. Structural influences typically are systemic characteristics. As these change only infrequently, they are mainly constants in an over-time comparison, and hence better studied in a country-comparative model. Election-specific influences can be studied in the design proposed here, but these influences are difficult to capture in indicators that can sensibly be used in each of a series of elections. All sorts of affairs, ranging from political scandals to economic fiascos and human or ecological catastrophes - as well as achievements - may have their influence on an ensuing election. Finding a way to make such events comparable is problem ridden.

Based on the two theoretical notions set out above, a total of four contextual indicators was selected. These indicators refer to the salience and frequency of elections, the clarity of the choice options offered in the election and the closeness of the election race. The expected influence of each of these indictors will be discussed here. As will become apparent, a contextual indicator can influence voters in more than one way, both facilitative as well as motivational, and by increasing the awareness of the election as well as the consequences of the election outcome.

**Government Collapse**

One election-specific characteristic that may be of consequence can be introduced into the analytical model through hindsight: whether or not the government coalition fell before the election. In the Netherlands, a fall of the coalition typically - though not necessarily - leads to early elections; for the period under study here a fall of the government always lead to early elections. In any case however, high media attention will be the result of the fall of the government. This makes government collapse a facilitative factor, as it reduces information costs for the electorate in the upcoming election. In addition to this, coalition break-ups tend

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4 The limited number of elections - i.e., contexts - available for study puts restrictions on the statistical model (see below). The number of variables indicating contextual characteristics was therefore kept to a minimum.

5 An overview of elections that saw a government collapse, as well as the other contextual characteristics is presented in Table 2.2.
to increase between-party rivalries, clarifying choice options - at least for the short term. Elections following the breakdown of a coalition are thus expected to see an increased awareness - and consequently turnout.

The fall of the coalition can also function as a motivational factor, since more will be at stake in the election. As a reconstruction of the old coalition is unlikely, the coming election will most likely produce a change in government direction, often coinciding with a change in leadership for some of the parties involved as well. These factors ensure that a fall of the coalition increases the consequences of the election, and motivates voters to turn out.

*Time Since Previous Election*

The time since the previous election, the second contextual variable introduced in the analytical model, may affect voters in two ways. One is facilitative, by affecting parties’ ability to make voters aware of the election through campaigning. The second is motivational, through ‘election fatigue’.

The awareness of the election can be influenced by campaign efforts of political parties. Although parties’ first aim in electoral campaigning is to increase their support, the awareness of the election among the electorate will automatically increase in the process. In the Netherlands, parties receive subsidies based on their share in representative bodies, but no direct campaign funding is made available by the state. A number of elections held shortly after another may exhaust parties’ campaign funds and consequently restrict campaign intensity, and thus also parties’ ability to increase the awareness of the election among the electorate (see also Franklin, van der Eijk & Oppenhuis 1996, p. 313).

Parliamentary elections at short intervals may also create some sort of election fatigue, decreasing the motivation of voters to participate (cf. Franklin, 2002). Voters may get the impression their vote is less important, as their vote in a recent previous election was evidently not sufficient to solve matters. Frequent elections, or rather a short period between two elections, may have a negative effect on the consequences of the elections as perceived by voters, and consequently a voters’ willingness to participate.

*Coalition Seeks Re-election*

The consequences of the election will be influenced by the choice options a voter is confronted with. As the Netherlands is a multi-party system, the number of choice options - political parties - is large. However, as no party ever comes near to a majority, party choice options do not easily translate into government choice options. Coalition negotiations take place only after the result of an election is known, and are thus largely beyond the influence of the voter. Both the electoral system and political mores in the Netherlands prevent a change in this, except for the few occasions when major parties explicitly announce a coalition preference before the election. This may occur when an incumbent coalition expresses the intention to stay together after the election if an electoral majority can be obtained.

A coalition seeking re-election helps voters, by offering voters a clear choice of government, not only of party in the election. Such a situation is expected to facilitate voters in choosing for or against the incumbent coalition, and thus have a positive influence on turnout. In addition, a coalition seeking re-election may have a motivational influence, stimulating government supporters to keep their favored coalition in power, while voters for the opposition may be induced to prevent this.
Closeness of the Election

The closeness of the election race influences the consequences of the election. If a clear favorite for the election exists, voters may feel their influence can only be marginal, and consequently decide to stay home. If, on the other hand, the outcome is uncertain and a close race is likely, voters may feel that their vote could just swing the balance, thus enhancing their influence and their likelihood to participate. Thus, the closeness of the election may have a direct motivational effect on participation.

The closeness of the election can also create a facilitative effect, by increasing media attention paid to the election. A neck and neck election race is attractive material for news media, generating more media attention than would otherwise be the case. The increased amount of information offered to voters reduces the cost of information and increases the awareness of the election, facilitating electoral participation.

The Netherlands is not a majority system where the election winner automatically ends up in government. The typical notion of a close race in which the two largest parties fight each other for government power does not readily apply. The largest party need not end up in government, or a new coalition might eventually contain both of the parties that were earlier tied in a neck and neck race. Nevertheless, becoming the largest party is of consequence, and the race for the lead is of significance in the Dutch political system. Since 1972 it is the custom that the largest party initiates coalition negotiations. In a party system where the typical election results in more than one coalition option, this custom is of considerable consequence in coalition negotiations.

One contextual characteristic deserves some additional attention, although the variable is a constant in the period of 1971-1998. A mandatory voting law was in effect in the Netherlands in the period before 1971, making 1971 the first parliamentary election where participation was not compulsory. The possible consequences of this will be examined in the analysis, where relevant.

2.2.2 Individual Characteristics

At the individual level, the selection of variables included in the model was again based on existing research. These individual level variables can be of a facilitative or a motivational character as well, and, just as at the contextual level, some variables have both a facilitative as well as a motivational influence. The variables included will now be discussed.

The variable education is facilitative factor. To understand the complex matter of politics, and to make an informed decision whether to vote and for whom, a certain level of cognitive skills is required. Education provides these cognitive skills. A positive influence of this facilitative factor is therefore expected on electoral participation. Education may have an added motivational effect since schools often encourage voting as a civil duty. Prolonged education ensures a prolonged exposure to this norm.

A number of variables included in the analytical model function as proxy-indicators for a motivational concept, namely social integration. In democratic societies, voting is one of the main opportunities for citizens to collectively influence the political course of the country. Integration into society increases the level of commitment to society, and will induce citizens to participate in the political process (Cf. Verba & Nie, 1972; Milbraith & Goel, 1977; Putnam, 2000). Therefore, a positive influence of social integration on the chance to vote is expected. Social integration cannot be measured directly, so that proxy-indicators have been
selected to indicate the degree of integration into society. *Income, class* and *age* are all positively correlated with the degree of integration (Cf. Hout & Knoke, 1975; Rose, 1974) *Income, class* and *age* are therefore expected to have a positive effect on electoral participation. Apart from these three proxy-indicators for social integration, an even stronger positive effect on turnout is expected from membership of specific groups in society that hold strongly to a norm of voting as a civic duty. In the Netherlands, this is especially relevant for members of the ‘traditional’ religious denominations (Roman Catholics, Dutch Reformed and Calvinist Protestants) as well as for labor unions members. *Religious denomination* and *religiosity*, as well as *union membership* are therefore added to the set of independent variables and expected to positively influence the chance to vote. *Religiosity* and *union membership* can both have an additional influence on voters in case the church or the union advice their followers to vote for a particular party. This may aide voters in determining what party is best for them, and thus have a facilitative effect.

A strong positive influence on electoral participation is expected from *Party attachment*, *political interest* and *political efficacy*. *Political interest* and *political efficacy* are both expected to have a motivational effect, since elections provide an opportunity for voters with high political interest and efficacy to influence matters that they care about. This motivational effect is expected for *party attachment* as well, in addition to a possible facilitative effect, since close party adherents will have an easier task in selecting the party to vote for.

As already mentioned, the influence of *gender* on turnout is not entirely straightforward, and its impact tends to vary with the number of other characteristics that are being controlled for (cf. Leijenaar, 1989, van der Eijk and Oppenhuis, 1990). *Gender* will therefore be included in the model without prior assumptions towards both the existence and the nature of a difference in turnout between men and women.

### 2.2.3 Mediating the Context through the Individual

Combining data on the individual level and the contextual level may not only allow more accurate estimates for characteristics on both of these levels. It also offers the opportunity to examine whether contextual influences are equal for all voters, or more influential for some, and less for others. In technical terms, this means that statistically significant interactions may be found between contextual and individual characteristics. Since existing knowledge on the interaction between contextual and individual characteristics regarding electoral participation is limited, expectations will be of a general nature.

The influence of the contextual characteristics included in the model is not expected to be equally strong for all voters. It is expected that individuals with a relatively low chance of participation are potentially more strongly affected by contextual characteristics than individuals with a high propensity to participate. The latter group will most likely participate in the election regardless of the specific circumstances, while voters who derive a smaller likelihood to participate from their individual characteristics may require some added incentive from the contextual level to actually participate. Part of this difference between voters may be attributed to a ceiling effect: if the likelihood to vote derived from individual characteristics is very high, it simply cannot rise anymore. The ceiling effect is handled by the logistic regression model.

In the analytical model, this variable influence of contextual characteristics on different voters is explored by introducing interaction terms between a personal characteristic that is a
strong predictor of electoral participation - political efficacy - and the contextual characteristics in the model. If these interaction terms prove statistically significant this means that the influence of contextual characteristics varies depending on individual characteristics. As political efficacy is expected to be positively related to electoral participation, higher political efficacy implies less influence for contextual characteristics. The expected sign of the interaction terms is therefore the reverse of the sign expected for the contextual effects. Since all of the contextual effects introduced in the model are expected to be positive, all of the interaction terms are expected to be negative (see below).

2.3 Data and Operationalization
To test the influence of contextual characteristics on turnout rates through their effect on individual behavior, nine National Election Studies administered in concurrence with the national elections held in the Netherlands in the period 1971-1998 were selected. These studies offer variation at the contextual and individual level, while at the same time ensuring a sufficient degree of comparability over all nine surveys. Of course, confining ourselves to only one political system inherently introduces limitations on the variance to be explored as well. Constitutional arrangements such as the existing electoral formula, the existence of weekday voting and the absence of mandatory voting laws are all constants for the Netherlands in the period under scrutiny. Their effects can therefore not be studied in this analysis.

The nine Dutch election studies offer a total of 14,284 cases available for initial analysis. In the Netherlands, a relatively large number of respondents refuse to answer some questions especially regarding personal income, creating the necessity to deal with the problem of missing data. To minimize the number of cases lost, data imputation was applied where missing values were replaced by the reference category score for the variables income, class and education. To detect whether these substitutions were permissible and hence whether respondents with missing data do not deviate in behavior from respondents with the actual scores, the following procedure was applied. Dummy variables were created for the variables income, class and education. These dummy variables were scored positive in case a respondent failed or refused to answer the particular question, while the missing values in the original variable were replaced by the imputed value. The dummy variables were then included in the analytical model. A statistically significant effect of one of these dummy variables then indicates that the respondents with missing data differ significantly from respondents with the actual score on that variable. Listwise deletion was applied for variables where data imputation was not acceptable. After deletion for missing data, 13,868 cases were available for analysis (97 percent of all available cases).

To ensure that no bias was introduced due to different sample sizes in the aggregated data set, each year was weighted to an equal sample size. In addition, the data were weighted to reflect actual turnout rates. Although non-voters show a consistently lower rate of participation in the Dutch election studies, no clear evidence has been found to assume that the sampled fraction is not a correct representation of the total group. Therefore, it is

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6 See the Appendix for details on the individual level variables employed in the analytical model.

7 Visscher (1995) disagrees with this, although Smeets (1995) found no evidence for his claims. See also Jaarsma et al. (1986) The under-representation of non-voters is common to election research and not confined to the Dutch election studies. See Katsosh and Traugott, 1981.
permissible to weigh the data according to actual turnout rates, allowing us to make population predictions on the basis of our model.

Since a complete structural model is not our aim, a regression model is the most suitable technique for our analysis. Since data at both the individual and the contextual level are used, this needs to be taken into account as well. The main problem arising from this is that the degrees of freedom at both levels differ. One remedy for this difference is to use multi-level modeling, to take complete account of the nested data structure of individual voters within electoral contexts. This will be done in chapters 5 and 6. In view of the exploratory character of this analysis, a regression analysis with robust standard errors is applied\(^8\). The problem with combining different contexts and modeling contextual characteristics as conducted in this research is that the standard errors are estimated incorrectly because the assumption of independent samples is not met, and contextual characteristics are operationalized as if they were individual level characteristics. This results in a consistent underestimation of the standard errors of estimated parameters, rendering estimates statistically significant where this may not be warranted. To correct this, an alternative estimate of variance is used, known as the Huber/White Sandwich estimator, which produces robust standard errors (Huber 1967; White 1980). The typical result - compared to non-robust standard errors - is a larger standard error.

In view of the dichotomous character of the dependent variable (did vote or not) and its skewed distribution, a logistic regression rather than OLS regression will be used. Logistic regression is a non-linear multiplicative technique that allows us to estimate the influence of a variable on the chance that a person will vote, given all the other characteristics of that person. So, the influence of a characteristic can change over different values of the other characteristics. The result of this is that the predicted chance to vote will remain within the logical boundaries of 0 and 1.

The four contextual characteristics that will be introduced into the model are operationalized as follows. The Government Collapse indicator indicates that the election follows the collapse of the government coalition. Government Collapse is expected to have a positive effect on electoral participation through increased media attention and increased perceived importance of the election. It is important to point out that this variable need not indicate that the election is called early. In the Netherlands, it is possible for a coalition to take on a caretaker role and keep to the original election cycle as occurred in 1977, although there is a significant relationship between Government Collapse and Time Since Previous Election.

The indicator labeled Time Since Previous Election indicates the years since a previous parliamentary election was held, and performs a double role. It is a proxy indicator for campaign efforts. Since no direct data on campaign efforts exist, the time since a previous election will be used as an alternative, on the expectation that quickly ensuing consecutive elections will deplete party funds. In addition, Time Since Previous Election is an indicator for the perceived relevance of the election, as frequent elections may create election fatigue, depressing turnout. For both interpretations, the expected relationship is positive, with longer time between elections encouraging turnout numbers. To improve interpretation the indicator has been transformed, by dividing the number of years since the previous election by the

\(^8\) Stata 7 was used for the estimations (StataCorp 2001).
number of years of a regular parliamentary term (four years, in the Netherlands) so that a score of one 1 corresponds to a full parliamentary term.

Coalition Seeks Re-election is a dummy variable indicating whether the incumbent coalition made reelection an election goal. A positive influence on turnout is expected. However, as this situation has only occurred twice in the period under study, in 1986 and 1998, caution is required in interpreting the outcomes for this variable.

The Closeness of the Election is measured with the aid of opinion polls\(^9\). These polls are typically published in the media in the run up to the election. The measure is constructed by taking the gap in percentage points between the two largest parties. The relationship between the closeness of the election and electoral participation is not expected to be linear: a 2 percent point change in the degree of closeness is relevant if the gap is very small, but not of great importance if the gap between the two largest parties is large. To reflect this non-linear character, the actual variable used is 1 divided by the gap in percentage points. This creates a variable that becomes (much) larger in closer elections. As a consequence, a positive influence is expected of the variable Closeness of the Election.

Table 2-2  The Netherlands - Values of Contextual Characteristics for the Period 1971-1998

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<tbody>
<tr>
<td>Government Collapse</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>No</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>Time Since Previous Election</td>
<td>1.02</td>
<td>.42</td>
<td>1.13</td>
<td>1</td>
<td>.33</td>
<td>.92</td>
<td>.83</td>
<td>1.17</td>
<td>1</td>
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<tr>
<td>Coalitions Seeks Re-election</td>
<td>no</td>
<td>no</td>
<td>no</td>
<td>No</td>
<td>no</td>
<td>yes</td>
<td>no</td>
<td>no</td>
<td>yes</td>
</tr>
<tr>
<td>Closeness of the Election</td>
<td>.213</td>
<td>.103</td>
<td>.303</td>
<td>.667</td>
<td>.714</td>
<td>.122</td>
<td>10</td>
<td>.263</td>
<td>.078</td>
</tr>
<tr>
<td>(gap in percentage points)</td>
<td>(4.7)</td>
<td>(9.7)</td>
<td>(3.3)</td>
<td>(1.5)</td>
<td>(1.4)</td>
<td>(8.2)</td>
<td>(0.1)</td>
<td>(3.8)</td>
<td>(12.9)</td>
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Note #: Time Since Previous Election is indicated in four-year terms.

The individual characteristics have been operationalized as follows. Class is measured on a five-point scale based on type of occupation. The categories are unskilled manual labor, skilled manual labor, self-employed, routine non-manual labor and skilled non-manual labor. The reference category is unskilled manual labor, to which all other categories are coded as contrast. Those who could not be assigned to any class category were included in the base category and identified through a separate variable.

Education is coded into three categories, ranging from primary (base reference category) through secondary to tertiary (polytechnic/university) level education. Each level is coded as a contrast to the preceding level, to show the impact of an additional level of education. To determine the difference of tertiary versus primary level education, the parameters for secondary and tertiary education thus need to be added. Respondents who failed or refused to give information regarding their education were included in the base category (primary education) and identified through a separate variable.

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9 The data used is collected on a weekly basis by NIPO Inc., the Netherlands Institute of Public Opinion and Marketing Research.
10 As mentioned already the largest party typically takes the lead in coalition negotiations after the elections.
Dummy indicators were constructed to signify respondents from the \textit{Lowest Income Quartile} and for \textit{Female} voters, while \textit{Age} was measured in years. Again, respondents for which no income information was ascertained were included in the base category (not lowest quartile) and identified through a separate variable.

\textit{Religion} was operationalized both according to denomination and religiosity, measured by frequency of church attendance. In the Netherlands, three dominant religious denominations exist: \textit{Calvinist}, \textit{Dutch Reformed} and \textit{Roman Catholic}. In addition, an \textit{other} category is included. This category contains a wide variety of religious denominations, some of which actually oppose electoral participation, as is the case for Jehovah’s Witnesses. This category is therefore expected to show a lower chance to vote than the three main denominations. The reference category for religion is not-religious.

Since the 1960s, the Netherlands has shown a steady decline in church adherence, especially in the Catholic Church. This has led to a situation where information on merely the denomination could be misleading. To remedy this, a measure of religiosity in the form of frequency of church attendance is introduced. Where useful, interactions between denomination and church attendance were explored.

\textit{Party Attachment} and \textit{Union Membership} are indicated by dummy variables, coded positive if a respondent expressed a preference for a political party or is a member of a labor union. \textit{Political Interest} and \textit{Political Efficacy} are each measured on five point scales from low to high.\footnote{The variables are additive index-scores, based on Mokken-scales of four separate items each. See Anker \& Oppenhuis, (1995) pp. 323-330 on the construction of these scales.}

\textbf{2.4 Predicting Individual Electoral Participation}

Table 2-3 shows the results of the logistic regression analyses of electoral participation. Four models are presented. It has been argued (cf. Campbell, Converse, Miller \& Stokes, 1960; van Deth 1989) that socio-demographic characteristics such as \textit{Class}, \textit{Income} or \textit{Education}, are mediated in explanatory models of electoral participation through psycho-political characteristics such as \textit{Party Attachment}, \textit{Political Interest} and \textit{Political Efficacy}. To assess this, the first model contains socio-demographic characteristics only. In the second model, the psycho-political characteristics are added. Socio-demographic effects that are mediated through psycho-political characteristics are then expected to decrease, compared to the first model. In the final two models, first contextual characteristics, then individual-contextual interactions are added. Robust standard errors are presented in conjunction with the estimated coefficients. Bold type indicates statistically significant estimates at $\alpha=.05$. Pseudo R-squared is based on Judge \textit{et al.} (1985).
The socio-demographic model (Model I) shows a rather low pseudo-$R^2$ of .083 although it has to be noted that pseudo-$R^2$ estimates tend to be low in comparison to ‘normal’ OLS $R^2$ values. A look at the parameter estimates shows that all statistically significant effects are in the hypothesized direction. Age and education tend to have a positive influence on individual electoral participation. The estimate for gender suggests that women show a higher participation.
probability to vote than men, other characteristics held equal. Class proves influential, especially with the ‘higher’ classes showing a larger propensity to vote. Initially when looking at religion, marked differences between the three denominations could be identified. However, here the crucial factor proves to be church attendance. The analyses show that especially weekly, but also monthly church attendance has a positive influence on electoral participation. However, this is not a uniform effect: regular church attendance has a negative influence for the ‘religious: other’ category. This is demonstrated by the interaction term between weekly church attendance and the ‘religion: other’ indicator in Model I\textsuperscript{12}. Only weekly church attendants of the ‘other’ denominations show a lower chance to vote; a separate effect of the ‘religious: other’ category itself is not statistically significant. A likely explanation is that the ‘religious: other’ category is indeed quite a mixed bag, consisting for a substantial part of first and second generation immigrants that attend church regularly, but are known to have a lower propensity to participate in elections (cf. Fennema & Tillie, 1999).

Another religious group showing comparable behavior are Jehovah’s witnesses. The analyses underline that especially for Catholics church attendance proves to be the determining factor. Model I shows, when controlling for church attendance, that being Catholic by itself does not affect the probability of voting, which indicates that Catholics who do not go to church regularly do not differ significantly in their electoral participation from unreligious voters. The other integration indicator, union membership, shows the positive influence on electoral participation that was expected.

The non-significant effect of the ‘no education level ascertained’ indicator suggests that those who failed or refused to answer this question show behavior comparable to those respondents with primary level education only. The most likely explanation is that for most of these respondents their education \textit{is} at primary level. For income, the ‘no income ascertained’ indicator also proves not to be significant. It is therefore unlikely that these respondents belong to the lowest income quartile, an assumption that is bolstered by practical wisdom of survey research, which states that it is those in the higher income brackets that are more likely withhold information on this question. For class however, there is a substantial effect related to not having a class level ascertained. This may be caused by the fact that a substantial part of this group will have no class score since they have no full time or part time occupation. These people show a distinct electoral behavior.

Adding psycho-political characteristics in Model II improves the pseudo-$R^2$ value substantially to .163. Model II also confirms that a large part of the socio-demographic influence is indeed mediated through the psycho-political characteristics. This is reflected in a decrease in the effect estimate for a number of socio-demographic characteristics, notably class, education and income, and to a lesser degree age, union membership and religion and church attendance. The noteworthy exception is gender, which shows a substantially larger influence once the psycho-political effects are taken into account. This suggests that it is with regard to political interest, political efficacy and party attachment where women trail behind men. If we keep the level of political interest, political efficacy and party attachment equal for men and women, which is what happens if we include the psycho-political characteristics in the model, we see that women are more likely to participate than men.

\textsuperscript{12} Other interactions were tested but proofed not statistically significant.
In Model II the influence of class is almost completely mediated through other characteristics, with only the difference between unskilled manual labor versus skilled non-manual labor remaining statistically significant. This suggests that, in line with the expectations set out above, class is a powerful predictor of the psycho-political characteristics, but has little additional influence on electoral participation in the Netherlands. Education, religion and church attendance remain influential, although their influence is reduced. The three psycho-political characteristics, political interest, party attachment and political efficacy, show the expected significant positive influence on electoral participation.

2.4.1 Contextual Effects
Model III makes the first step of adding contextual information to the model, by including four indicators for contextual characteristics. The addition of the contextual characteristics increases the pseudo-$R^2$ value only minimally to .168, although the substance of this improvement of the model will become more apparent in section 2.5 below. With the exception of the closeness indicator, the estimates for the contextual characteristics are all in the expected direction. Closeness, as operationalized, was expected to have a positive influence on voting, but instead shows a negative effect. It should be noted however, that this effect is not statistically significant.

In agreement with expectations, longer periods between elections have a positive effect on turnout, as does a coalition seeking re-election, although caution needs to be taken with the latter indicator, since it applies to only two elections. As hypothesized, a coalition collapse does indeed tend to increase electoral participation.

The individual level estimates show only minimal change when the contextual characteristics are added to the model. However, the control variable for an absence of class information now proves to be no longer statistically significant, so that the only remaining additional influence of class on electoral participation is for skilled non-manual labor.

2.4.2 Individual-contextual Interactions
The model analyzed here does not allow extensive testing of numerous individual-contextual interactions. The number of contexts available is simply not sufficient. This section will therefore not present an exploration of all possible interactions between individual and contextual level characteristics, but rather go for one 'safe bet'. Interactions will be modeled between all contextual characteristics and political efficacy, an important predictor of electoral participation. If individual level variations in the influence of contextual effects exist, they are most likely to manifest themselves through these interactions.

The interactions between political efficacy and the contextual characteristics are presented in Model IV. Again, the pseudo-$R^2$ increases, though again only marginally to .173. The estimates for individual level characteristics show very little change compared to the previous model, with the obvious and unsurprising exception of the direct estimate for political efficacy.

At the contextual level, the estimates show substantial change. Again this is to be expected because of the interaction terms. The direct effects of the contextual characteristics now indicate the influence on voters with the lowest level of political efficacy, to which the composite terms of the interactions have to be added to complete the equation. Since the signs for all interaction terms are indeed the reverse of the direct estimates of the contextual effects,
this indicates that the influence of contextual effects decreases as political efficacy increases. This finding is statistically significant for all four interactions, and in line with the expectations set out in Section 2.2.3. Apart from this general corroborating finding, there are some more specific findings that are a bit more confusing. Again the estimate for the closeness of the election is opposite from what was expected. Moreover, it is statistically significantly different from zero. The negative estimate suggests that turnout is actually higher in elections where the gap between the two leading parties is larger. In comparison to the previous model, the estimate for the direct effect of a coalition seeking re-election has substantially decreased in size and is no longer statistically significant.

2.5 Predicting Turnout Levels
The previous section showed that the political context is not of equal importance to all voters. The context-individual interaction terms proved that the influence of the contextual characteristics is less for voters with higher levels of political interest and political efficacy than for the less politically interested and for voters with lower political efficacy. This improves our understanding of electoral participation. The question remains however, whether adding contextual information gives us a better understanding of electoral participation only, or whether it also improves our capacity of predicting who will vote or not. To answer this, in this section turnout rates will be predicted, based on the models presented in Table 2-3, specifically models II and IV. These two models represent the full individual level model, and the model with contextual characteristics and interaction terms added.

For each individual, the predicted value was computed. The predicted value reflects the probability that individual will participate, as predicted by the model. Because of the use of logistic regression, this value will always be between zero and one. Aggregating the predicted values produces the predicted turnout rate for the complete sample. As was mentioned already, each of the samples has been weighted so as to reflect the actual turnout rate of the election, so that sample composition will not obfuscate the predictions based on the statistical model. Table 2-4 presents the predicted turnout rates per election in percentages, based on the individual model (II) and the context and individual level model (IV). The actual turnout figures are presented on the last row.

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<tbody>
<tr>
<td>Individual model (II)</td>
<td>84.6</td>
<td>85.8</td>
<td>85.9</td>
<td>83.8</td>
<td>82.4</td>
<td>83.7</td>
<td>82.1</td>
<td>81.7</td>
<td>68.4</td>
<td>2.53</td>
</tr>
<tr>
<td>Context &amp; Individual model (IV)</td>
<td>82.8</td>
<td>85.2</td>
<td>88.1</td>
<td>81.9</td>
<td>80.8</td>
<td>87.1</td>
<td>80.6</td>
<td>80.2</td>
<td>71.7</td>
<td>1.69</td>
</tr>
<tr>
<td>Actual turnout</td>
<td>79.1</td>
<td>83.5</td>
<td>88.0</td>
<td>87.0</td>
<td>81.0</td>
<td>85.8</td>
<td>80.3</td>
<td>78.7</td>
<td>73.0</td>
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</tbody>
</table>

The two models produce clearly different turnout predictions. The inclusion of contextual information does alter the predictive accuracy of the model, even though the difference in R-square is minimal. It does not produce a consistent over or under-estimation of the turnout level, as turnout rates are not consistently too high or too low. The last column of Table 2-4 shows that the predictions from the Context & Individual model are on average 1.69
percentage points off the actual outcome, while the Individual model is less accurate with an average deviation of 2.53 percentage points. Indeed, as Figure 2-1 shows even more clearly, the predictive power of the model greatly increases as contextual information is added. The contextual-individual model outperforms the individual level only model in all elections but one.

Figure 2-1 presents the deviation from actual turnout for the predicted turnout levels of the two models. In essence, it shows how far the predictions are off, and whether they fall short or overshoot the mark. For each election, actual turnout is represented by the zero-line, with deviations given in percentage points. The improved prediction of the contextual-individual level model is obvious. Only in 1981 is it further off the mark than the individual level model.

Figure 2-1  The Netherlands - Predicted Turnout Levels, Deviation from Actual Turnout

2.6 Conclusions: Does Context Matter?
This chapter explored the influence of contextual characteristics on individual electoral participation in the Netherlands between 1971 and 1998. At the individual level, most characteristics behaved in the way expected. The influence of gender proved to be interesting. In the analyses presented here, women show a higher propensity to vote than men, particularly when controlling for the relevant psycho-political characteristics (political interest, political efficacy and party attachment). This is in contrast with findings in other countries (Blais and Carty 1990; Lipset 1981; Verba et al. 1978; Wolfinger & Rosenstone 1980). Previous Dutch research did not come up with a single consistent outcome (Leijenaar 1989; van der Eijk & Oppenhuis, 1990). It appears that the influence of gender is strongly dependent on the other characteristics included in the model, with the psycho-political characteristics playing a key role. With regard to religion, the key factor appears to be
religiosity, as indicated by church attendance. Only Dutch Reformed and Calvinists show a greater likelihood to participate in addition to the separate effect of church attendance. Catholics who do not attend church frequently do not distinguish themselves from the non-religious, although the parameter estimate by itself suggests that Catholics that do not attend church regularly vote less often than the not-religious.

There was strong support for the thesis that contextual characteristics affect individual voters over and above the influence of individual characteristics. In addition, the interaction terms showed that individual level characteristics determine the degree to which stimuli from the electoral context affect voters. These findings help explain between-election fluctuations in turnout figures. The accuracy of turnout prediction was increased considerably by including characteristics of the election and the political system in which it was held.

There are also limitations to the analyses presented. The ability to draw unequivocal conclusions on contextual influences on turnout is hampered by data limitations. The relatively low number of contexts - i.e., elections - puts a restriction on the model, and especially on the number of explanatory variables on the aggregate level. The next chapter will treat this subject more extensively, and suggest a more in-depth exploration of the influence of a single contextual characteristic - the closeness of the election - on individual behavior, rather than a wide exploration of several contextual characteristics.