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Rethinking the dependent variable in voting behavior: On the measurement and analysis of electoral utilities☆

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Abstract

As a dependent variable, party choice did not lend itself to analysis by means of powerful multivariate methods until the coming of discrete-choice models, most notably conditional logit and multinomial logit. These methods involve estimating effects on party preferences (utilities) that are post hoc derived from the data, but such estimates are plagued by a number of difficulties. These difficulties do not apply if advanced statistical procedures are used to analyze utilities directly measured with survey data. Such variables have been employed for a number of years and have been extensively validated in past research. Analysis of party choice on the basis of measured utilities is less hampered by restrictions and (often implausible) assumptions than discrete-choice modeling is. Particularly problematic is the

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inability of discrete-choice models to analyze small-party voting. The resulting elimination of voters of small parties results in strong biases of the coefficients of explanatory variables. No such need for eliminating cases arises when analyzing empirically observed utilities, so parameter estimates from these analyses do not contain this bias. Finally, observed utilities provide opportunities to answer research questions that cannot be answered with discrete-choice models, particularly in comparative research. We therefore urge that direct measures of electoral utilities should be included in all election studies.

Keywords: Discrete-choice models; Individual choice theory; Electoral utility; Multiple party preferences; Comparative research

1. Introduction

Studies of party choice have traditionally been plagued by the qualitative character of their dependent variable. Except in two-party or two-candidate contests, the nominal level party choice variable does not lend itself to investigation by means of powerful multivariate methods. Until quite recently researchers had to resort to less powerful or less versatile methods of analysis (classic elaboration, loglinear modeling), or else they had to redefine the dependent variable so as to make it amenable to some form of regression analysis or causal modeling, for instance by replacing parties by their position on a left/right dimension. For obvious reasons, neither of these options was entirely satisfactory. It is little surprising that methods promising to solve this dilemma were warmly received in the discipline. Such methods presented themselves in the form of so-called discrete-choice models, which rapidly attracted attention and gained acceptance in electoral studies. The most well known of this class of models are multinomial logit (MNL) and conditional logit (CL) and various kinds of probit models. They are usually described as regression models for nominal-level dependent variables, offering all the versatility and multivariate power that are commonly associated with regression techniques. As soon as user friendly computer programs for these methods became available in the early 1990s, they were rapidly adopted and, by the end of the 1990s, discrete-choice modeling had become the de facto industry standard for explanatory analysis of party choice.

In this article we argue that the canonization of discrete-choice models as the method par excellence for the analysis of party choice is unwarranted. These methods of analysis have their own substantive and methodological problems, which are often insufficiently recognized. Moreover, these models are not well suited to answering some of the most important questions on the research agenda of many scholars in electoral research: questions relating to contextuality, heterogeneity, and the linking of electoral supply and demand. In this paper we will argue that more progress in the field of electoral research can be made by an alternative approach, which does not focus on the dependent variable "party choice", but instead on empirically observed electoral utility as the dependent variable.

The problem of a nominal-level dependent variable that used to trouble students of voter choice was real enough, but to some extent self-inflicted. It originated from

a failure to explicitly distinguish between choice on the one hand, and the attractiveness of the parties and candidates as options for choice. Referring to the latter as utilities, Downs (1957) and other scholars in the so-called rational choice tradition were most explicit in acknowledging this distinction. But analysts from the so-called sociological (or social-structural) and social-psychological traditions also distinguish between utilities on the one hand and choice on the other, although usually quite implicitly.[1] Actually, some of the classic works in these traditions (Lazarsfeld et al., 1944; Campbell et al., 1960) do focus on (determinants of) utilities for candidates and parties, though neither explicates the relationship between utilities and choice. Both these studies clearly imply, however, that voters choose the party that has the highest utility to them. The (explicit or implied) distinction between utilities and choice thus does not differentiate between different theoretical perspectives on electoral behavior. These perspectives only differ in the specific explanatory concepts that they favor.[2]

The conclusion from this (exceedingly brief) review of different substantive traditions in the field of electoral research is that they are *all* based on the distinction between utilities and choice, even when they do not always make the distinction explicit. In terms of data collection, however, the distinction has rarely been implemented. Election surveys have ubiquitously contained questions about party choice, but they have almost all abstained from attempting to operationalize electoral utility.[3]

This lack of empirical attention to utilities is surprising. Yet, judging from the development of electoral studies into one of the most successful fields of empirical political research, one could conclude that this has not been very detrimental and thus no reason for great concern. This conclusion is to a considerable degree justified for systems such as the USA where elections are mainly about the choice between two options. But the absence of empirical data on utilities is problematic in multi-party or multi-candidate elections.[4] We therefore find in multi-party systems all kinds of additions to the party choice question designed to supplement what many scholars evidently felt to be an otherwise too meager basis for analysis. Often these additions centered around respondents' second choices (occasionally even their third or fourth choices) and around the degree of certainty (or, conversely, hesitation) with which they had made their choices. Still, it was not until the 1980s that systematic attempts were made to measure electoral utilities as such in election surveys.

[1] That they do so is most obvious in their discussions of "cross-pressures", which imply the existence of two or more choice options of roughly equal attractiveness (i.e., utility). Tillie (1995: 16–26) elaborates this argument in more detail.

[2] The rational choice approach differs from sociological, social-psychological and other substantive theories by imposing specific restrictions on the allowable set of determinants of utility as a basis of distinguishing "rational" from other choice (see also: Brennan and Lomansky, 1993).

[3] Many election surveys contain the so called "thermometer" questions, asking voters to rate the parties according to how warm they feel towards them. Conceptually, this question was never intended to indicate electoral utility, and it has rarely been used for that purpose (the main exception being analyses of directional issue voting, e.g., by Rabinowitz and MacDonald, 1989; Macdonald et al., 1991). Below we will argue that this question is not suitable as a proxy for electoral utility.

[4] The few cases where American presidential elections were real three-candidate races did indeed provide quite unexpected problems for scholars of American voting behavior. The rarity of these occasions, however, has prevented a reappraisal of default operationalizations of the dependent variable.

In this article we argue that studies of party choice should be based on the analysis of empirically measured electoral utilities, though party choice must, of course, be measured as well. This is not only a viable alternative to discrete-choice modeling, but it is actually to be preferred. It leads to research designs in which classic regression methods can be used, which are not burdened by the specific problems of discrete-choice models. Even more importantly, it provides opportunities for comparative electoral research that cannot be obtained with other methods. We first introduce some general concepts from individual choice theory. Subsequently we discuss discrete-choice models and some of the problems they generate. We then turn to the empirical measurement of electoral utilities, and test the validity of a specific survey operationalization. Subsequently we discuss a practical research design for investigating observed utilities and actual choice. Finally, we explain the power of this design for comparative research, and we summarize a number of important additional uses of empirically measured utilities for the wider agenda of electoral research.

2. Individual choice theory and discrete-choice models

Contemporary choice theory generally conceptualizes choice as a function of three elements: (a) the characteristics of the decision maker; (b) the set of available alternatives and their characteristics; and c) a decision rule. Given a set of alternatives and their attributes, individual choice is commonly construed in two stages. In the first stage, individuals assess the utility of each alternative, and the way in which they do so is referred to as the *utility function*. In the second stage, the *decision rule* specifies how these utility assessments lead to actual choice. The concept of utility assumes that the contributions of all relevant factors to the overall attractiveness of an alternative can be expressed in a single standard, so that they can be combined into a single value (Ben-Akiva and Lerman, 1985: 37).[5] For electoral choice, these two stages are visualized in Fig. 1; in some way voters assess the utilities that voting for parties would yield them, and then base their choice on these utilities.

[5] The term "utility" is used differently in different academic traditions. In the "expected utility" approach (prevalent in economic theory and game theory) utility refers to the affect of an actor for an outcome. Only after it has been multiplied with the probability of that outcome (yielding expected utility) is it thought to motivate actor's behavior. In the tradition of "individual choice theory" (prevalent in psychology, consumer studies and electoral research) utility refers to a choice option, which implies that probability or strategic considerations that an actor may apply are incorporated in the concept. The latter use of the term is the one that we use in this article, because it is more appropriate for inductive, explanatory research across large numbers of actors, when no exhaustive enumeration of outcomes exists and when it cannot be taken for granted that the same factors contribute to utility for all actors. The importance of probability and strategic considerations is thus not ruled out, but it is an empirical question (see also Fig. 1).It is not self-evident that all components that contribute to the attractiveness of alternatives lend themselves to being reduced to a single standard (cf. Krantz et al., 1971; Camacho, 1979, 1980; Luce, 1999), but that question is not the one that concerns us in this article. We start from the assumption—which is ubiquitous in the field of electoral studies—that parties as objects of electoral choice represent utilities to voters, and then ask what the implications of that common assumption are for empirical research design, operationalization, measurement, and analysis.

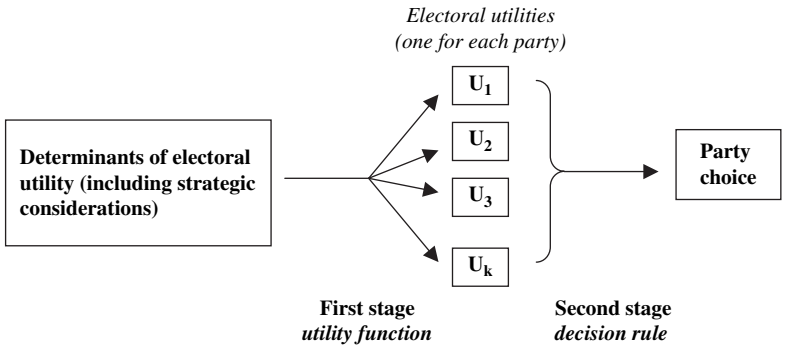

Fig. 1. A two stage model of electoral choice.

The decision rule is commonly assumed to be utility maximization (i.e., a voter chooses the party that yields the highest utility).

A utility function may be constructed as yielding ordinal or cardinal utility. The first form is commonly known as a preference ranking of alternatives (e.g., person n ranks alternatives from most to least preferred: $x > y > z$). Cardinal utility exists when preferences can be mapped to numerical values with metric qualities. Cardinal utility thus provides the additional information how much more alternative x is preferred over alternative y, etc. In accordance with the prevalent use in the literature, we refer to ordinal utilities as *preferences* and to cardinal utilities as *utilities*.

Empirical studies show that individuals facing an identical choice situation do not always select the same alternative (see Thurstone, 1927), leading to the development of probabilistic choice theory. Luce and Suppes (1965) distinguish two probabilistic choice mechanisms: *constant utility* and *random utility*.[6] The difference between these two approaches is the location of the probabilistic aspect of the theory: in the assessment of utilities (first stage) or in the application of the decision rule (second stage). Constant utility theory states that the second of these steps (choice) is a probabilistic function of preferences or utilities (Luce, 1959). This approach has not been influential in electoral applications, in contrast to the random utility approach, which was first formalized by Manski (1977).

[6] These two approaches are not the only suggested modifications to deterministic choice theory. Threshold models, for example, state in contrast to the decision rule of utility maximization that individuals choose an alternative if its utility exceeds some critical value. The satisficing rule as proposed by Simon (1957) is probably the most well known threshold model. Only few formal representations have been proposed, however. The most useful ones are based on Coombs' (1964) analysis of the "pick any/m" task (cf. van Schuur, 1984, 1993) and Thurstone's (1959) method of successive categories (Böckenholt, 2001: 11969). The major problem with satisficing models in electoral research is that they cannot explain which of various satisfactory and simultaneously available options will be chosen. Moreover, the pick any/m analogy is usually not applicable in electoral contexts (the only exception being the rarely used system of approval voting (Brams and Fishburn, 1978).

Random utility theory assumes that the decision rule is applied deterministically. Moreover, it assumes that qualitative choice is measured in its true form (i.e., errorless) as a discrete variable. The individual preferences or utilities, however, will not always be the same under identical conditions, which reflects measurement error and random variation in the assessment of preference/utility. Utilities are thus conceptualized as random variables. Implied in this formulation is a distinction between latent and manifest utilities. Latent utility is the mean of a probability function, and manifest utility is a single observation that can be regarded as a random draw from this distribution. Depending upon one's assumptions about these distributions, the latent utilities (sometimes referred to as "true" utilities) can be deduced from the relative frequency with which an individual chooses various alternatives under identical conditions.[7]

In our view, the random utility approach is more fruitful than constant utility. The latter implies the existence of a latent (or "true") "choice", consisting of a choice probability for each of the parties. Manifest choice is then seen as a crude approximation thereof (Aldrich and Nelson, 1984). We doubt the relevance of conceptualizing *electoral* choice in this way, particularly from a political and systemic perspective (see also Alvarez and Nagler, 1998; Thurner, 2000). This constant utility conceptualization implies the notion of a "true" election outcome, which differs in an unknown degree from the observed one. However interesting such a conceptualization may be from a statistical perspective, it is of little use when we study elections as mechanisms to connect individual choice with societal outcomes.

On the methodological side, the discrete-choice models that have become en vogue during the last decades are motivated by individual choice theory[8] (e.g., Ben-Akiva and Lerman, 1985; King, 1989, McFadden, 1973). The general form of multinomial logit models is:

$$U_{\mathrm{ij}} = \beta_j X_i + u_{ij} \tag{1}$$

where U_{ij} is the ith individual's utility of the jth choice, and X_i is a vector of values of the ith individual on the independent variables. The model estimates a set of regression coefficients for each of the alternatives (except for the choice option that has been defined as reference category), hence the subscript in β_j. Conditional logit models similarly regress utilities on independent variables (cf. Alvarez and Nagler, 1998).[9] From this general form we see immediately that the common portrayal of

[7] Because of the practical impossibility of a large number of repetitions across a single individual, replications can also be obtained across different individuals if they are identical in all relevant characteristics, or after controlling for all their relevant attributes (see also Lancaster, 1966). This implies that latent (or "true") utilities can be deduced from choice on the basis of ordinary survey data, if one is willing to assume that indeed all relevant attributes of respondents have been controlled for. The statistical procedures involved are components of discrete-choice models, as we will discuss below.

[8] Examples of application of these methods in multiparty elections include Whitten and Palmer (1996), Alvarez and Nagler (1998), Quinn et al. (1999), Thurner (2000), and Glasgow (2001).

[9] The CL form is $U_{ij} = \beta X_{ij} + u_{ij}$. The difference with the MNL form is caused by a different definition of the independent variables and stacking of the dependent (see also the section on designs for the analysis of utilities, below).

discrete-choice models as regression models for nominal-level dependent variables is incorrect. Choice is not the dependent variable, but the utility of the choice options. Because of this and because of their assumption of a utility-maximizing decision rule these models are conceptually isomorphic with substantive approaches to explaining party choice. However pleasing this may be, it also leads to the question how the dependent variable (utility) is measured.

There are principally two ways to generate the utilities of choice alternatives. First, one can attempt to *observe* them in one way or another. A second strategy is to deduce them from observed choice behavior—yielding what economists refer to as *revealed* utilities (see footnote 7). Below, we will discuss both strategies. We begin with the procedure used in discrete-choice models: deducing utilities. We continue then to discuss the possibilities of observing utilities. The remainder of the paper argues why the latter is to be preferred over the former.

3. Deducing electoral utilities

In discrete-choice models electoral utility is not measured at all, but post hoc deduced from the relative frequency with which each of the choice options is chosen by individuals after controlling for what are assumed to be all relevant characteristics (i.e., the independent variables). This means, however, that the *utilities* that are the dependent variable in discrete-choice models are in fact derived from (conditional) *probabilities*. Under a number of circumstances (see below) this involves serious risks, which can already be suspected at this stage because utilities are individual and non-ipsative in character, while probabilities are aggregate characteristics and ipsative because they sum to 1. At this stage it should also be mentioned that the procedure for deducing utilities necessitates in practice eliminating from the analysis parties that have been chosen by only a handful of respondents (who are thus eliminated from the analysis as well). Otherwise the utilities for small parties would be too unstable. Because of the small proportion of voters that chose these parties, this restriction is generally considered to be unproblematic. Yet, the decision to leave out some choice options (i.e., parties) is less innocuous than it looks at first sight.

By restricting the number of choice options in the analysis one changes the nature of the phenomenon under investigation. Rather than investigating voter choice, one ends up investigating choice from among the largest parties. This transformation of the problem makes it more difficult, and sometimes even impossible, to investigate the importance of some independent variables. Eliminating choice options—and the respondents who selected these options—reduces the variance of independent variables, which leads necessarily to smaller estimated effects than otherwise would be found. This problem may be referred to in different terminologies, such as local independence, or selection bias, but irrespective of the terminology we use, it cannot but result in estimation bias.[10]

[10] An additional problem is that different samples may necessitate the elimination of different parties. Estimated coefficients from them will all be biased, but not necessarily in the same way, making comparison between estimated models quite tenuous.

The procedure for deducing utilities only yields unbiased estimates of utilities if *all* relevant characteristics of voters and of parties are known and controlled for (see footnote 7). This is obviously a tall order, and the procedure thus contains slippage due to measurement error, unobserved attributes, unobserved taste variation, etc. (Manski and McFadden, 1981). As a consequence, the revealed utilities will be different for every different set of independent variables that is used to explain them, which makes comparison of rivaling models less than straightforward. It also renders comparisons between surveys from different countries or periods indeterminate. Misspecifications of the model in the form of omitted variables will bias the revealed utilities in unknown ways, and therefore also the estimated effects of independent variables. Moreover, the procedure implies a strong assumption of homogeneity of voters, the plausibility of which is difficult to assess afterwards.[11] Unfortunately, most users of discrete-choice models seem to be hardly aware of these and other problems.[12] One of the *auctores intellectuali* of random utility discrete-choice modeling, McFadden himself issues a strong warning against their careless use:

> Any set of identifying restrictions … will require powerful axioms on behavior, and care must be exercised in avoiding application of these models in situations where the axioms are implausible. (McFadden, 1973: 112–113)[13]

Discrete choice models only yield unbiased estimates of electoral utilities if their central assumptions are not violated and if they are fully specified. Some of their central axioms are exceedingly implausible (see footnote 13), while a fully specified model is in practice unattainable. Given these problems, and those discussed in the text above, it is difficult to embrace these models if alternative methods exist for measuring electoral utilities.

The alternative is to try and observe rather than to reveal utilities. If feasible, this is not only to be preferred because discrete-choice models are less than ideal, but even more so because the essence of *empirical* research requires, wherever possible, empirical observations to be the basis of our analysis, rather than deductions. In the next sections we present a straightforward procedure for observing electoral utilities empirically. We also indicate what properties such measures should have in order to

[11] This assumption is also made by OLS methods, but because the dependent variable is an actual observation in that situation, violations of the assumption are much easier to diagnose.

[12] Many users of discrete-choice models are also unaware of the intricacies of correctly interpreting parameter estimates. For instance, an undesirable property of discrete-choice models is that normalizing the scale of utilities leads to incomparable estimated parameter magnitudes across different models and data sets (for a detailed discussion of this point, cf. Train 2003: 28–29). By normalizing the error variances, coefficients are a function of the unexplained portion of utility. Thus, when models differ in the absolute magnitude of the estimated parameter, one may not conclude that the larger (absolute) value represents a stronger effect. Lack of awareness of this feature of discrete-choice models has led to a number of incorrect substantive conclusions in the empirical literature.

[13] Because others have belabored *ad nauseam* the empirical implausibility of one of these central axioms—IIA, or the independence of irrelevant alternatives—we will refrain from doing so here (cf. Alvarez and Nagler, 1998). We do want to add, however, that the extent to which this central axiom is violated increases with the extent of electoral competition. But it is particularly under circumstances of electoral competition that an unbiased estimation of electoral utilities is of interest, see also footnote 7.

be considered valid, and present evidence that these observed utilities pass muster in these respects.

4. Empirical observation of electoral utilities

Electoral utilities can be observed by standard survey methods.[14] This involves asking respondents to report on a scale the utility they would derive from voting for each party in turn. The problem here, however, is how to formulate such questions. Words such as utility, preference and choice are quite common in everyday language, but their colloquial meanings are largely overlapping and quite distinct from their meaning in individual choice theory.

Citizens think and talk about voting and preferences more often in terms of party choice than in terms of utility. Consequently, survey questions intended to measure utility may be best cast in terms of choice in order to be comprehensible to respondents. To have such questions pertain to utilities and not to choice (in the academic meaning of the word), they have to free the respondent from familiar restrictions that apply to the real act of voting (often the restriction that one can vote for only one of the parties), and that do not apply to utilities.[15] In the early 1980s van der Eijk and Niemöller experimented with projections into an undefined future to accomplish this (van der Eijk and Niemöller, 1984). They settled on a formulation that has been used in an increasing number of studies: all Dutch Parliamentary Election Studies since 1982 (seven studies in total at the time of writing), the European Election Studies of 1989, 1994, 1999 and 2004, and a growing number of (national) election studies including those in Britain, Ireland, Spain, and Germany. In this formulation, respondents are requested to indicate on a 10-point scale the likelihood that they will "ever" vote for each of the parties in their country. In the 1994 Dutch Parliamentary Election Study (DPES94, see Anker and Oppenhuis, 1997) this question was formulated as follows:

> Some people are quite certain that they will always vote for the same party. Others reconsider in each case to which party they will give their vote. I shall mention a number of parties. Would you indicate for each party how probable it is that you will ever vote for that party?
>
> A show card was presented with 10 categories numbered 1 to 10. Category 1 was labeled 'I will certainly never vote for this party' and category 10 was labeled 'I will certainly vote for this party at some time'

As voters are not expected to have prognostic powers, the responses are thought to express current electoral utilities. Minor variations in question wording seem not to

[14] We refrain here from a detailed discussion of ways for empirically observing ordinal utilities or preferences. Most methods for doing so are cumbersome; even worse, partial or complete preference orderings are exceedingly difficult to analyze as dependent variables, as anyone can attest who has ever tried to do so. We restrict ourselves here to the empirical observation of cardinal utility.

[15] Cardinality of utility should be reflected in non-ipsativity of observations (i.e., the number of observations equals the degrees of freedom). Probabilities are obviously ipsative, owing to the fact that they sum to a fixed total (i.e., df is smaller than the number of parties). See also footnote 16.

affect this question's validity (see next section on validation) as long as two conditions are fulfilled. First, the "ever" has to be left unspecified, and not related to a specific upcoming or recent election or to a given time period. Second, the responses for each of the parties should in no way constrain each other, a high score for one party should not require that lower scores be given to other ones, and the scores should not be required to have a constant sum or anything like that.[16]

We assert that this question yields what we are interested in: empirical observations of (current) electoral utilities for the available choice alternatives.[17] This claim is based on the results of a series of validating analyses that will be discussed next.

5. Validation of observed electoral utilities

The multi-party system of the Netherlands provides an appropriate context to assess the properties and validity of the responses to the question about electoral utilities that was described above. We use the Dutch Parliamentary Election Study of 1994 (DPES94) for our validating analyses.[18] In 1994 nine parties gained electoral representation. Each of these was included in the set of questions concerning electoral utility and they are all included in the analyses reported below. This is the same data set

[16] We want to emphasize the difference between our measurement of utilities and the data provided by a different question that at first sight seems very similar. Sometimes respondents are asked to indicate choice probabilities with respect to intended voting behavior in an upcoming election (Maas et al., 1990; Burden, 1997). In these questions the set of responses must satisfy some constraint, e.g., when requested in the form of percentages, that they sum to 100. This question does not yield utilities but probabilities (or a function thereof). Although functionally related to utilities, they are not the same, because utilities pertain to single parties whereas the constraint that probabilities sum to 100% gives them a relational character. Cardinality of utility should be reflected in non-ipsativity of observations (i.e., the number of observations equals the degrees of freedom). Probabilities are obviously ipsative, owing to the fact that they sum to a fixed total (i.e., df is smaller than the number of parties). In many standard forms of analysis this generates a violation of one of the basic statistical assumptions.

[17] At this stage we need to make a remark about the so-called party sympathy scale (sometimes also referred to as feeling thermometer), a survey question that is relatively often included in election surveys. For each of a series of parties it asks about one's feelings (warm–cold) or about the degree of sympathy a party evokes. Sometimes these are used as operationalizations for electoral utility, as is done, e.g., in most analyses of directional voting (Rabinowitz and MacDonald, 1989; MacDonald et al., 1991). In terms of the criteria employed in the following section (validation)—match of actual choice with highest score, match of second choice with second highest score, etc.—the sympathy scale performs too poorly to regard it as a useful proxy for electoral utility. Evidently, "sympathy" is not the same as electoral utility, although it may very well be one of its causes.

[18] The number of cases in DPES is 1812 in the pre-election interview and 1527 in the post-election wave. Data reported below come from the post-election interviews. DPES94 data are available to the research community without restrictions from Steinmetz Archives, the ICPSR and other data repositories. Similar validating analyses on other DPES datasets, or on the comparative datasets from the European Election Studies (EES) have been reported elsewhere, see, e.g., van der Eijk and Niemöller (1984), van der Eijk and Oppenhuis (1991), Tillie (1995), Oppenhuis (1995), van der Eijk and Franklin (1996), van der Eijk et al. (1999). All these reports demonstrate the same properties of the responses to these questions as reported here, irrespective of mode of administration (face-to-face, telephone or telepanel), country (the EES consist of samples from all member-states of the EU) and moment in time.

that was used by Alvarez and Nagler (1998) in their demonstration of the advantages of conditional logit models for analyzing party choice in multi-party systems.

The largest parties in 1994 are the Dutch Labour Party (PvdA), the Christian-Democrats (CDA), the right Liberals (VVD), the left-liberal D66, and the environmental Green/Left party (GL). The smaller parties that were included in the electoral utility question are SGP, GPV, RPF and CD. The first three of these are small orthodox-protestant parties; the CD is an extreme-right wing party with a pronounced anti-immigrant position.

Before assessing the validity of the responses as measures of electoral utility we first illustrate the extent to which these questions provide additional information over and above the question of party choice. For most parties we find a slightly bimodal distribution, with a large mode at the low scores (people for whom the party is not attractive at all) and a second mode at the high end of the scale. It has to be noted that all categories in between these two extremes are actually used, which provides evidence that parties are not evaluated dichotomously (accept/reject). When shifting the focus from parties to individual respondents we find that voters express all kinds of nuances in their responses. If they would routinely give a "certainly never" response to all parties except the one they (intend to) vote for, the combined responses would yield no more information than the ubiquitous party choice question. But such response patterns are exceedingly rare. Most voters give high scores to several parties, with their second highest score usually only a little lower than the highest. As an illustration, we find that no less than 47% of the respondents give a score of six or higher to at least three different parties; an additional 21% do so for two parties. No more than 14% of the respondents give a score of six or higher to only a single party.[19] Table 1 reports additional illustrative information: the percentages of the sample giving a high score to each of the parties, in combination with the percentages that voted for these parties.

The first column in Table 1 shows the percentage of the sample that gives a score of six or higher to each of the parties. The sum of these percentages is 227.8%, which implies that, on average, respondents give a "high" score (meaning here six or higher) to 2.3 parties. When comparing these percentages with the actual choices of the sample for each of these parties (last column of Table 1) we see that for each party the reservoir of favorably inclined voters is considerably larger than the group of actual voters. This implies, first, that party choice alone is insufficient to chart the full pattern of electoral utilities. Second, it shows a considerable degree of competition between the parties for votes. Third (by implication only, not further elaborated here), much can be learned from investigating which parties tend to resemble each other in terms of yielding high utility to (particular groups of) voters.[20]

[19] The remaining 18% gives no party a score of at least six. Most of these respondents turn out to be non-voters, which indirectly provides support for the interpretation of these scores as utility: if no party yields sufficient utility, there is little sense in turning out to vote at all (see also Franklin et al., 1996).

[20] In view of the preferential choice nature of these data (see Coombs, 1964), unfolding analysis is the most appropriate method for describing the latent structure (if any) behind the manifest responses (see also van Schuur, 1984, 1993).

Table 1
Percentage of high utility scores for parties

	% of utility scores 6 or higher	Votes *N* (%)
PvdA	46.0[a]	348 (26.7)[b]
CDA	38.4	272 (20.9)
VVD	37.1	307 (23.6)
D66	52.0	250 (19.2)
GL	26.5	77 (5.9)
SGP	7.8	6 (0.5)
GPV	8.3	10 (0.8)
RPF	8.4	19 (1.5)
CD	3.3	13 (1.0)

Data source: DNES 1994 (Anker and Oppenhuis, 1997).
[a] These percentages are computed over all respondents.
[b] These percentages are computed over all respondents who voted in 1994.

Interesting as these analyses may be, they do not go to the heart of validating these scores as measures of electoral utility. For that, we look at three different criteria. The first, and most pertinent, is that the party that a respondent actually votes for scores highest in utility. The second criterion is that the party that is the respondent's second choice should score as second highest. The third criterion is that a multivariate explanatory model of utilities should yield an overall acceptable prediction of party choice. Starting with the first of these criteria, Table 2 shows the extent to which actual choice and highest score on the utility question coincide.

Table 2 shows that 93% of the respondents gave the highest utility score to the party they actually voted for. These percentages are very similar for all parties,[21] so that we may conclude that an almost deterministic relationship exists between party choice and the highest utility score, as should be the case if voters use utility maximization as decision rule and if our measures are valid indicators of utility.[22] Such percentages are not restricted to 1998, nor to the Netherlands. Similar percentages were found in the Netherlands in other years, and also in all member states of the EU at the times of the European elections of 1989, 1994 and 1999 (Tillie, 1995; van der Eijk and Franklin, 1996; van der Eijk et al., 1999). We conclude therefore that the measures of electoral utility have successfully passed this first validity test.

[21] In several cases the utility scores for the most and second most preferred party are "tied". These ties are included in Table 2. So, if two or more parties share the highest utility score that a respondent has awarded, and one of these is the party voted for, we conclude that actual choice coincides with the highest utility. One may of course object to this on the grounds that such ties make it impossible to establish unambiguously that highest utility coincides with actual choice. Kroh and van der Eijk (2003) present similar results as in Table 2, while excluding these ties from the analyses. They show that the percentages remained virtually unchanged compared to counting ties as successes: in more than 93% of the untied cases, actual choice (which is the first preference in the logic of individual choice theory) coincides with highest utility.

[22] So far, we have not been able to detect intelligible reasons causing the less than 100% success rate. Therefore, we are inclined to consider this slippage as mainly the effect of random error.

Table 2
Percent correctly classified choice (1st preference) from observed utilities for all respondents and all parties, DPES'94

	Classified correctly (%)	Vote choice, *N*
PvdA	93	348
CDA	96	272
VVD	93	307
D66	94	250
GL	91	77
SGP	100	6
GPV	70	10
RPF	100	19
CD	62	13
All parties	93	1302

Data source: Anker and Oppenhuis (1997). *Note*. The table reads as follows: 93% of the 348 respondents who report to have voted for PvdA also ascribe to the PvdA the highest utility score (including ties), etc.

The link between actual choice and highest utility score should, ideally, be complemented by similar links between second (and subsequent) choices to second highest (and subsequent) scores, etc. The DPES94 contains some useful additional information in this respect. Respondents were not only asked which party they had voted for, but also whether or not they had "seriously considered" voting for a different party, and if so, which one. This question indicates for at least some respondents what their second choice was.[23] Because the question is not an ideal one (see footnote 23) and because lower order choices may be somewhat less stable than first order preferences, we expect a somewhat weaker, but still very strong relationship between second choice and the second highest score on the utility question. Table 3 presents relevant results. The left panel presents average utility scores for the five largest parties for three groups of respondents: those who actually voted for that party, those who did not vote for that party but who had seriously considered doing so, and those who neither voted for it nor had considered doing so. The average utility scores presented in this panel show precisely the pattern that we would expect to find: decreasing average utilities from the first to the second to the third of these groups, with a smaller difference between the first two groups than between the second and third.

The right-hand panel of Table 3 shows the match between the party that was second choice for respondents and the party that obtained their second highest utility score. Occasionally we find that voters give their second choice party an equally high utility score as they give to their first choice party (the one they actually vote for); this explains most of the difference between the two rightmost columns in Table 3.

[23] This question is imperfect because it does not inform us about the second choice of those who did not say that they had seriously considered voting for a different party. Moreover, the question does not specify a time frame for this doubt (at the polling booth, during the campaign, still earlier?). For these reasons, this question is not ideal as a measure of second choice.

Table 3
Analyses of alternative choices (2nd preference), DPES'94[a]

	Average utility scores			Congruence between second rankings	
	Voters for party	Second choice	Not 1st or 2nd choice	% ranking party second	% ranking party second or first
PvdA	9.1 (347)	8.0 (64)	4.5 (875)	68.2 (66)[b]	89.4 (66)[c]
CDA	9.0 (272)	7.1 (41)	4.2 (977)	61.9 (42)	76.2 (42)
VVD	8.9 (302)	7.7 (59)	3.8 (920)	87.1 (62)	95.2 (62)
D66	8.8 (248)	7.7 (129)	5.3 (901)	86.7 (135)	90.4 (135)
GL	9.0 (77)	7.9 (39)	3.7 (1154)	67.4 (43)	83.7 (43)

Data source: Anker and Oppenhuis (1997).

[a] The sample size is reduced compared to Table 1 because only those respondents are included in the analysis who report 1st and 2nd party preference (party choice and considered alternative) for the five parties analyzed.

[b] Of the 66 voters who did not vote for the PvdA, but indicated that they had considered voting for the PvdA as their second choice, 45 (68.2%) gave their second ranking utility score to the PvdA.

[c] Of the 66 voters who did not vote for the PvdA, but indicated that they had considered voting for the PvdA as their second choice, 59 (89.4%) gave the PvdA their highest or second highest utility score.

The findings in Table 3 provide strong evidence for the validity of the utility scores. The match between second choice and second highest utility score is somewhat less spectacular than in Table 2, but nevertheless quite respectable in view of the imperfect operationalization of the second choice measure.

The third and final criterion requires that the application of a utility maximization decision rule on the predicted utilities that derive from a multivariate explanatory model of utilities should yield acceptable levels of correct predictions of actual choice. Obviously, these predictions of discrete choice will be considerably lower than in Table 2, as it is unlikely that any model will explain all variance in utilities. By necessity, the prediction of party choice will also be lower than that of discrete-choice models that utilize the same independent variables. This is because the latter use utilities that are post hoc "revealed" in a way that optimizes the linkage between highest utility and choice. The observed utilities lack this "advantage" of capitalization on chance.

Tables 4 and 5 present the results of two models of party choice in the Netherlands in 1994. Both use the same data and exactly the same independent variables.[24] The first is a conditional logit (CL) model of choice between the five

[24] The independent variables are left/right distance, post-materialism, perceptions of the economic situation, attitudes towards EU integration, attitudes towards euthanasia, attitudes towards law and order, attitudes towards income differences, attitudes towards refugees, attitudes towards nuclear energy, social class, religious denomination, age, education, gender, family income, union membership, and whether the respondent came from an urban area.

largest parties, very similar to the one reported by Alvarez and Nagler (1998).[25] This model correctly predicts the party choice in 65.4% of the cases (see Table 4).[26] The second model is an OLS regression in which the utility scores are regressed on the same independent variables, and where party choice is predicted for each respondent from the highest predicted utility (see Table 5). The model predicts 61.2% of the choices correctly, as compared to 65.4% for the CL model. In view of our remarks above about the post hoc optimization of the linkage between highest utility and party choice, which capitalizes on chance, we consider the predictions of choice from the model of observed utilities to be very acceptable. But the analyses reported in Tables 4 and 5 do not tell the whole story. To maximize comparability with the CL model, the same restrictions were imposed that are necessary for CL, but not at all for an OLS analysis of observed utilities. These involved the elimination of the respondents who voted for four small parties; 10% of the sample. Earlier, we stated that such selections will bias estimated coefficients. Within the CL framework this is difficult to assess, as not eliminating them yields very unstable results. But the empirically observed utilities are ideally suited for estimating the consequences of these restrictions: the fact that a party attracts few voters constitutes no problem as *all* respondents have been asked how likely it is that they will "ever" vote for it.

When comparing results of the model reported in Table 5 with a similar analysis from which no respondents were eliminated we do indeed find considerable differences. Restricting the analysis to five parties yields an R^2 of 0.48, using the information of all nine parties for which utilities were observed increases this to 0.59. Coefficients of independent variables are robust as long as we only consider their sign and significance, but they are quite different when we consider their estimated values (something that we can validly do in OLS regressions). The value of coefficients shifts (upward or downward, dependent on the variable in question) by as much as 10 standard errors; which is statistically highly significant. The ordering of independent variables (from most to least important) changes as well. Similar analyses on other data sets and other model specifications reveal that biases of this magnitude are not exceptional at all, but rather commonplace. Elimination of voters for small parties has in general the most drastic effects on the coefficients of left/right distances between voters and parties, on voter-party distances for important issues and on indicators of strategic considerations. In addition, effects of socio-economic background variables are sometimes strongly affected. These biases are not limited to OLS analyses, they are equally present in discrete-choice estimates of effects, but there we are usually blissfully unaware of them. The main point, however, is that such biases are unavoidable in discrete choice models, while they need not occur

[25] The restriction to only the five largest parties is caused by the discrete-choice models' inability to adequately deduce utilities for choice options that have been chosen by very small numbers of respondents. This restriction is not at all necessary for the OLS analysis of the observed utilities, but has been implemented anyway for the analysis reported in Table 5 in order to provide a basis of comparison between that table and Table 4.

[26] Both models were specified as fixed effects models at the level of parties. For the sake of brevity, we focus here only on predictive performance and do not report the full details of these two models. Interested readers can obtain all specifications from the authors.

Table 4
Party choice and predicted party choice by CL (row percentages)

		Predicted party choice					
		PvdA	CDA	VVD	D66	GL	
Observed party choice	PvdA	67.5[a]	5.4	7.4	16.3	3.5	100% 203
	CDA	8.8	65.5	20.3	5.4	0.0	100% 148
	VVD	5.6	10.7	76.5	6.6	0.5	100% 196
	D66	25.9	8.0	11.7	51.8	2.5	100% 162
	GL	31.1	2.2	0.0	11.1	55.6	100% 45
Total		28.8	18.9	28.4	18.9	4.9	100% 754

Data source: Anker and Oppenhuis 1997.
[a] 67.5% of the 203 respondents who voted for the PvdA were predicted correctly by the model. Total percentage of correct predictions was 65.4%.

when analyzing empirically observed utilities. Furthermore, the inability of discrete choice models to tell us anything at all about the reasons for small party support is a major shortcoming of such models.

Of course, other criteria for validity can be proposed. A much larger number of assessments of the performance and characteristics of observed utilities have indeed been conducted and reported elsewhere (see particularly Tillie, 1995; also Oppenhuis, 1995; van der Eijk et al., 1996). They all point to the same conclusion: our straightforward survey question, on the likelihood that one will "ever" vote for each of the parties, yields data which in all sorts of respects behave as they should if they are to be interpreted as electoral utilities.

6. Designs for the analysis of observed utilities

The survey question about electoral utilities yields a number of variables: one for each party mentioned in the question. The logic of the electoral utility concept does not suggest that these should be subjected to separate analyses. A single specification of the factors that determine utility for all of the parties—electoral utility in its generic form—seems more to the point. Whether or not there is reason to add

Table 5
Party choice and predicted party choice by linear predictions from utilities (row percentages)[a]

		Predicted party choice					
		PvdA	CDA	VVD	D66	GL	
Observed party choice	PvdA	67.5[a]	5.9	2.9	22.2	1.5	100% 203
	CDA	10.1	61.5	14.9	12.8	0.7	100% 148
	VVD	5.1	10.3	65.6	18.5	0.5	100% 195
	D66	24.7	8.0	6.8	58.0	2.5	100% 162
	GL	51.1	2.2	0.0	22.2	24.4	100% 45
Total		30.2	17.3	21.7	28.0	2.8	100% 753

Data source: Anker and Oppenhuis (1997).
[a] 67.5% of the 203 respondents who voted for the PvdA were predicted correctly by the model. Total percentage of correct predictions was 61.2%.

party-specific components to the utility function can only be assessed empirically. Electoral utilities in this generic form can be analyzed as a single dependent variable by way of a variant of regression in time and space (cf. Stimson, 1985). In practical terms this can be achieved by performing regression analyses on a "stacked" data matrix. This is a matrix derived from a "normal" one, in which the records represent not respondents, but respondent×party combinations. Fig. 2 illustrates the construction of a stacked data matrix. In such a data matrix each respondent is represented by as many "cases" as there are parties for which utilities have been asked, and each party is represented by as many records as there are respondents.[27]

The dependent variable in the analysis of the stacked data matrix is the observed electoral utility of parties for voters. The structure of this data matrix is basically the same as in CL analyses, the only difference is that the dependent variable is dichotomous in CL (a party was chosen by the respondent in question, or not), whereas it is a scale here.

As in CL models, the character of the cases (respondent×party combinations) requires that the independent variables indicate *relationships* between voters and parties rather than voter characteristics. For some variables this can easily be achieved by defining a distance (e.g., on issue scales), or some kind of similarity between voter and party. For other variables (e.g., religion), it is less obvious how they should be transformed to fit the structure of a stacked data matrix. In discrete-choice modeling the problem that some voter characteristics cannot be easily transformed into voter–party relationships is handled by reverting to a mixed CL/MNL specification. We chose not to pursue a similar strategy in our design for the analysis of observed utilities. Our first reason for adopting a different solution is theoretical. Alvarez and Nagler (1998: 56) correctly point out that MNL models represent a "limited substantive view of politics": only the characteristics of voters are seen as relevant for choice, not the characteristics of parties. CL models, on the other hand, regard choice as influenced by both voter and by party characteristics.[28] We fully agree with this epistemological critique of MNL models. But the essence of

[27] Most programs that perform CL analyses effectuate the necessary stacking of the data matrix in the background, without need for user intervention. Even when not using discrete-choice models, some software packages (e.g., STATA) can perform this transformation of the structure of the data from a single command. Other packages, however, require users to perform the transformation of the structure of the data themselves (e.g., SPSS, although the new "restructure" command takes most of the pain out of this process).

[28] In practice, the structure of the data is transformed to fit this perspective of CL models. Not respondents, but respondent×party combinations become the units of analysis, and independent variables have to be constructed in such a way as to fit this structure. We do the same in our design. One of the consequences of this design is that a single coefficient is estimated for each independent variable, rather than a number of coefficients as in the case of MNL (one coefficient for each party, except the one chosen as reference category). At times it has been remarked that this is an overly restrictive specification that rests on the untested assumption that the utility function is identical across all parties. This critique is not justified, however. Whether or not utility functions should contain party-specific elements is a matter of empirical research. In our design and that of CL it is necessary to conduct a number of diagnostic tests after the initial estimation of the model, in order to decide whether it is necessary to re-specify the model by including party-specific components in the utility function. For an elaborate example in which these considerations are applied, see van der Eijk et al. (1996: 355–362).

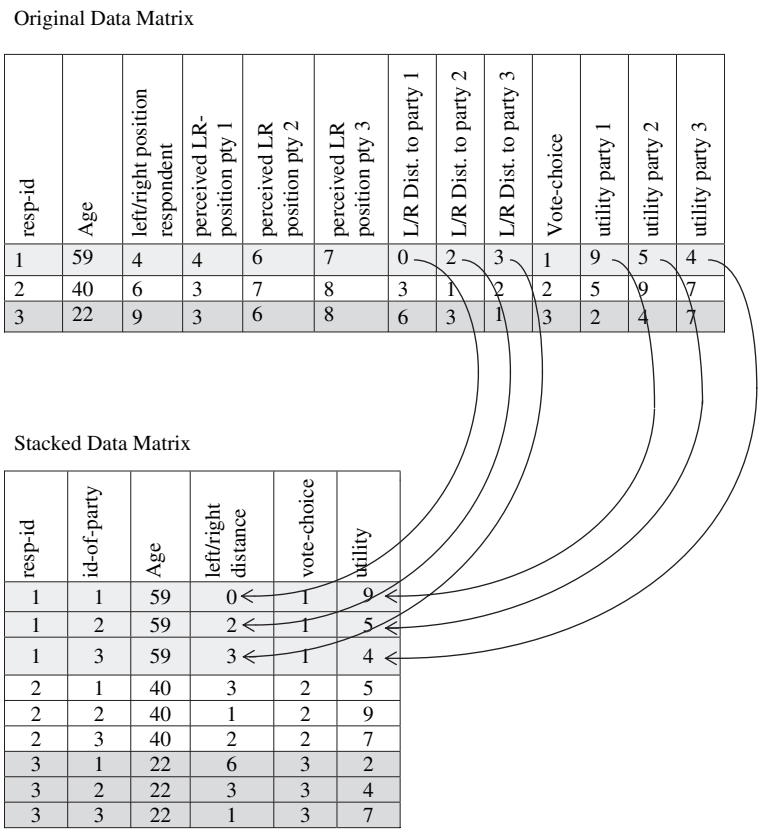

Fig. 2. Structure of stacked data matrix.

this critique is not limited to those situations where it is easy to construct distances between parties and voters. The perspective that parties' characteristics are relevant for choice extends even to situations where respondents were not explicitly asked about them. Yet the MNL part of a mixed model ignores this. In our design for the analysis of empirically observed utilities we did not want to emulate this unsatisfactory solution. Our second reason for avoiding the equivalent of a mixed MNL/CL model is that it would thwart our comparative aspirations (see our section on Design for comparative analysis, below).

So, rather than devising an analogue for such mixed models we devised a procedure by which *all* voter characteristics can be transformed so as to permit their inclusion in a stacked data matrix. To construct the independent variable for, e.g., "religion", the following procedure is used. First, in the original (unstacked) data matrix, utilities for each of the parties are separately regressed on religion.[29]

[29] This procedure can equally be used for a single indicator for, e.g., religion, as for a number of indicators that the analyst wants to combine under a generic heading of "religion". In the latter case, the *y*-hat derives from a multiple regression.

The predicted values (y-hats) of each of these separate regressions are saved; these are simply linear transformations of the original independent variable, which can be included in the stacked data matrix.[30] Application of this procedure in actual research has been very satisfactory.[31]

The design for the analysis of electoral utility offers an important analytical advantage over discrete-choice models. It allows the effects of party characteristics on utility to be estimated. This can easily be done by adding to the stacked data matrix new variables that pertain to parties (e.g., their size, government status, etc.).[32] This has obvious advantages for the study of strategic considerations of party choice (cf. Tillie, 1995: 114–119; van der Eijk et al., 1996).

7. Design for comparative analysis

Because the utilities in stacked data matrices do not pertain to any party in particular, but to party×respondent combinations instead, it is possible to pool data from different surveys without further ado.[33] Additional information can be added to such pooled combination of stacked data sets, pertaining to the characteristics of political systems and political parties. The multi-level structure of such a pooled set of stacked surveys makes it possible to analyze the effects of variables at different levels of analysis in a single integrated model, and to assess interactions between variables at different levels.[34] This also yields more powerful ways of addressing

[30] When stacking the y-hats in the stacked matrix, the actual variable that is added to the stacked matrix is the deviation of the y-hat from its mean for the respective party. This encapsulates all explanatory power of the independent variable, and prevents differences between parties in average utility from contaminating the effects of the newly created independent variable. This procedure is also advocated by Iversen (1991) and Snijders and Bosker (1999). For a more elaborate discussion of this procedure, see Tillie (1995) and van der Eijk et al. (1996).

[31] Although we have not discovered this in the literature, one could surmise that similar procedures can in principle be designed for CL models, thus avoiding the somewhat ungainly mixed models that contain both MNL and CL components. It is obvious, however, that a similar transformation of independent variables that would fit the log-odds structure of CL models would be considerably less straightforward than the procedure that we designed for use in OLS regressions.

[32] Because the records in the stacked matrix pertain to voter×party combinations that each have a different value on the dependent variable (utility), party characteristics will in general, not be multicollinear with respondent id (as would be the case in CL). Nor will they be constants, as they would be for the party-specific components of MNL models.

[33] We use the term pooling for adding records (here respondent×party combinations) from one survey to those of a different survey that is transformed to the same stacked form.

[34] Only by way of pooled analyses can a systematic assessment of characteristics of the effects of contexts (e.g., countries) on individual behavior be attained along the lines originally recommended by Przeworski and Teune (1970). Elaborate empirical examples can be found in van der Eijk et al. (1996), where data are analyzed spanning 14 political systems and some 100 different political parties; and in van der Brug et al. (2001 and forthcoming) where 16 systems (with some 120 different parties) are compared at three different periods in time.

questions of contextuality and heterogeneity than is possible with discrete-choice models.[35]

The power of this stacked and pooled design is difficult to attain in other analytical approaches (generally including discrete-choice models),[36] which are unable to accommodate the differences between the party systems from which voters have to make their choices. Two kinds of "solutions" are commonly employed in comparative studies to permit comparison between different party systems. One solution is to recode party choice in different countries into a dichotomy or typology that is meant to make different party systems comparable. How to make such transformations is rarely self-evident but, worse, they distort the actual choice context that voters find themselves in. By consequence, the effects that they estimate for independent variables are distorted too. The other solution that is often used is to conduct separate analyses for each of the countries, and to compare these. The comparison of coefficients across separately estimated models is somewhat tenuous, however, because each contains unavoidably some degree of capitalizing on chance. Moreover, separate analyses do not allow systematic assessment of the effects of systemic variables, as these are constants in each of the separate analyses. None of these suboptimal solutions has to be used, however, when using the stacked and pooled design.

8. Observed utilities and the wider agenda of electoral studies

In addition to the various uses of observed utilities that were discussed above (and in some of the footnotes), these variables offer many other important analytical and empirical uses for what sometimes is referred to as the wider agenda of electoral research (Thomassen, 2000). This wider agenda is directed to unraveling the respective contributions of voters, parties, elites, media and systemic characteristics to elections and the process of democratic representation. Not all potential uses of empirically observed utilities to this wider agenda have yet been systematically charted, but some have. Without elaborating these possibilities in full detail, we feel that the productive and innovative use of observed electoral utilities in the following areas deserves to be mentioned in this context:

- Analysis of electoral participation: the likelihood of casting a ballot has been shown to be significantly related to the level of utility of the most preferred party (Franklin et al., 1996).

[35] For an example of using the stacked and pooled design for assessing homogeneity of parties, see van der Brug et al. (2000) and van der Brug and Fennema (2003); for examples of assessing homogeneity of voters, see van der Brug et al. (2002).

[36] In principle, CL also allows for such straightforward pooling of data from different surveys, as is demonstrated by Kroh (2003). However, pooling in a CL context usually restricts the analyst to a very small number of independent variables—only those for which a voter×party relationship can easily be constructed. Other independent variables would yield a mixed CL/MNL model that does not allow pooling because the MNL component is unable to compare party choice in different party systems (see also footnote 31).

- Analysis of the electoral potential of political parties: observed utilities can be used to demarcate and quantify the segment of the electorate that may be considered to be within a party's reach (cf. Table 1, above; for other examples see Marsh, 2005). This is particularly useful for political practitioners in campaign contexts. Moreover, it has proved to be a very useful criterion for assessing the effects of media content and political events on support for parties (van der Brug and van der Eijk, 2000).
- Analysis of patterns of party competition. The electoral potentials of various parties overlap, and these overlaps indicate which parties vie for the support of the same voters. Political systems can be characterized by the intensity and patterns of party competition, which helps to understand party behavior during election campaigns and the dynamics of party support during such periods (cf. van der Eijk and Niemöller, 1984; van der Eijk and Oppenhuis, 1991). Moreover, this example and the previous one have obvious implications for the empirical analysis of party systems and their dynamics.
- Estimation of voter preferences, their choices, and election results under counterfactual conditions (see van der Brug, 2004; van der Brug et al., forthcoming). These applications belong to the realm of analyses that make politics and models go together (rather than collide, as Alvarez and Nagler (1998) suggest), a kind of application that has been ignored too often in academic electoral studies.

9. Discussion and conclusion

Electoral studies are among the most successful subfields in empirical political research. Yet, important empirical and theoretical questions remain to challenge us. Some of these involve the narrow agenda of refining our understanding of the processes leading to party choice, others involve the broader agenda of linking party choice and its determinants to the characteristics of institutional, social, economic, and political contexts. Part of this broader agenda revolves around the interrelationships between voters, party elites, and the media.

Progress on both of these agendas can be made by extending the dependent variable to include electoral utilities in addition to party choice. In earlier publications, we and others have demonstrated that it is possible to empirically measure electoral utilities in a manner that lends itself to ready inclusion in mass surveys; in fact, surveys containing these questions have already been successfully conducted in a number of European countries. We have subjected the resulting data to a number of tests that they needed to pass in order to be regarded as valid operationalizations of utility. We have explicated designs for the analysis of these observed utilities. We have even published findings that take productive advantage of the approach we advocate to reach provocative conclusions that could not have been reached with traditional methods (including CL and MNL). Yet these arguments and findings are still relatively new and have so far appeared in fragmentary fashion over a variety of different publications.

In this article we have integrated a number of our experiences and insights, hoping to make clear the fact that empirically observed utilities are more than just another way of doing the things we already do. With empirically observed utilities we cannot merely do the same thing as with discrete-choice models—engage in multivariate analysis of the determinants of party choice—we can actually do it better, with fewer restrictions and fewer (often unwarranted) assumptions. Not only do these data allow us to engage in such analyses, they also permit these analyses to be seamlessly linked to research about campaigns, about party competition, and, most importantly, with similar data from other periods and other countries.

Our conclusion constitutes a plea to the community of scholars that study elections and voting. Election surveys should devote rather more space than is customary to questions pertaining to the dependent variable. Questions about party choice are indispensable, but they should be complemented by questions about electoral utility.

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