

### Data quality in content analysis: the case of the comparative manifestos project

Volkens, Andrea; Bara, Judith; Budge, Ian

Veröffentlichungsversion / Published Version  
Zeitschriftenartikel / journal article

Zur Verfügung gestellt in Kooperation mit / provided in cooperation with:  
GESIS - Leibniz-Institut für Sozialwissenschaften

#### Empfohlene Zitierung / Suggested Citation:

Volkens, A., Bara, J., & Budge, I. (2009). Data quality in content analysis: the case of the comparative manifestos project. *Historical Social Research*, 34(1), 234-251. <https://doi.org/10.12759/hsr.34.2009.1.234-251>

#### Nutzungsbedingungen:

Dieser Text wird unter einer CC BY Lizenz (Namensnennung) zur Verfügung gestellt. Nähere Auskünfte zu den CC-Lizenzen finden Sie hier:  
<https://creativecommons.org/licenses/by/4.0/deed.de>

#### Terms of use:

This document is made available under a CC BY Licence (Attribution). For more information see:  
<https://creativecommons.org/licenses/by/4.0>

# Data Quality in Content Analysis. The Case of the Comparative Manifestos Project

*Andrea Volkens & Judith Bara & Ian Budge\**

**Abstract:** While textbooks offer numerous devices for enhancing and testing the data quality of content analysis, all tools must be tailored in line with the contexts of the text and the analytical concepts of research. This is particularly the case in a long-term project such as ours that has continued for three decades to code election programs of all significant parliamentary parties in old and new representative democracies since World-War II for the purpose of measuring policy preferences of political parties. This article starts with a discussion of the strengths and weaknesses of the two basic types of quantitative approaches – human-based and computer-based content analysis. The basic features of our classical human-based approach for estimating parties' policy preferences are outlined by reference to Krippendorff's (2006) typologies of reliability and validity. The conclusions highlight implications of the contexts of manifestos and the concepts applied to them for providing high quality manifesto data across party systems and elections.

**Keywords:** Process-generated Data, Content Analysis, Comparative Manifesto Project (CMP), Measurement Quality, Coding.

## 1. Introduction

Content analysis has a long history in political science. As an approach derived from media research (Berelson 1952) political communication (Lazarsfeld/Berelson/Gaudet 1948), in particular political symbols (McDiarmid 1937, Lasswell 1941) and political propaganda (Lasswell et al. 1965), were addressed. These were based on the analysis of newspapers, presidential campaigns, and presidential inaugural speeches as early as the 1940s. The cycles of political values detected in British speeches from the throne (Namenwirth 1973, Namenwirth/Weber 1987) added further to the dissemination of this methodological approach. With the General Inquirer (Stone et al 1966, Gerbner et al 1969) and, later on, TextPack (Klingemann et al 1984) content analysis

---

\* Address all communications to: Andrea Volkens, Wissenschaftszentrum Berlin für Sozialforschung (WZB), Abteilung Demokratie: Strukturen, Leistungsprofil und Herausforderungen, Reichpietschufer 50, 10785 Berlin, Germany; e-mail: volkens@wzb.eu.  
Judith Bara, Queen Mary, University of London, Department of Politics, Mile End Road, London, E1 4NS, United Kingdom; e-mail: j.l.bara@qmul.ac.uk  
Ian Budge, University of Essex, Wivenhoe Park, Colchester, CO4 3SQ, United Kingdom; e-mail: lindad@essex.ac.uk.

packages for computer-based analysis of all kinds of political documents had become available by the 1960s and 1970s.

Still, content analysis did not become a dominant technique in political science until much later when the idea spread to measure policy preferences based on the parties' election programs. This idea dates back to the beginning of the 1970s when one of the founding fathers of our project, David Robertson, developed the idea of comparing competitive strategies of British and American parties based on their election programs (Budge/Robertson/Hearl 1987/2008, Robertson 1976). Another two decades went by until the idea took root. Today, publications devoted specifically to the topic of estimating policy preferences are quite common (Budge et al. 2001, Electoral Studies 2006, German Politics 2009, Klingemann et al. 2006, Laver 2001).

The reason for this success story in political science is that policy preferences play a major role in many normative and analytical theories of parties. While some party theories directly touch on the contents of manifestos, there is a host of related research questions to which election programs can provide answers due to their specific features: (1) Election programs are either issued by councils of elected party elites or legally ratified by party conventions. Thus, they are authoritative statements of party preferences and represent the whole party, not just one faction or politician (Hofferbert/Klingemann/Volkens 1995). (2) Election programs are issued at regular intervals. In all electoral democracies programmatic changes can be observed over parties' lifetimes. (3) Election programs cover a wide range of concerns. Therefore, party preferences on these issues can be measured and compared to the preferences of their competitors within party systems as well as to their sister parties across political systems. (4) Last but not least, machine-readable versions of election programs are nowadays available in most electoral democracies.

The following section provides a brief introduction to the basic traits of the content analytical method and discusses the strengths and weaknesses of the two major types of content analyses applied to election programs, namely quantitative human-based and quantitative computer-based content analyses. Thereafter, the features of our projects are outlined with particular reference to the data quality of our classical approach of expert coding the programs within the political and socio-economic contexts of the respective party systems. In the concluding section, data quality is argued to be the main reason why a human-based approach to measure policy preferences across countries and across time is needed despite all past and (foreseen) future advancements in computer-based content analysis.

## 2. Human-based and Computer-based Content Analysis

Many textbooks have been published to delineate the methods of content analysis (Carmines/Zeller 1979, Früh 1981/1989, Holsti 1969, Merten 1983,

Mochmann 1980, Neuendorf 2002, Roberts 1997, Weber 1990). In the following discussion of the merits of human- and computer-based content analysis we mainly rely on Krippendorff's (2006) recent and comprehensive assessment of the types and applications of content analysis. Krippendorff provides the following definition: 'Content analysis is a research technique for making replicable and valid inferences from texts (or other meaningful matter) to the contexts of their use' (2006: 18). This definition of content analysis first and foremost demands drawing replicable inferences because texts can be interpreted quite differently. In ordinary life, the number of inferences to be drawn from a text can be tantamount to the number of readers. By using content analysis as a scientific instrument, each and every properly trained coder should come to the same conclusion about unitising, i.e., choosing the same coding unit, and scoring, i.e., selecting the same concept for a unit.

According to Krippendorff, inferences must be drawn in the context of the particular usage of the text: 'Without the appropriate context, a document means very little; a document placed in the wrong context acquires incorrect meanings, or at least meanings that make no sense' (Krippendorff 2006: 26-27). In addition, inferences must also be valid. They are valid if they measure what the analytical concepts such as policy preferences intend to investigate.

Today, political scientists tend to belong to two opposing camps. They are either in favour of the computer-based type and despise the human-based approach or vice versa they appreciate human-based and scorn computer-based content analysis. Advocates of computer-based analysis argue that computers can process large amounts of texts much faster and more cheaply than humans (Bara 2006). Most importantly, reliability in the sense of getting the same results from a particular text whenever and by whomever the method is applied is a critical issue of human-based content analysis whereas it is a non-issue for computer-based content analysis. Therefore, advocates of computer-based coding reason that their approach is not fraught with qualitative judgements.

Advocates of human-based content analysis think that texts can only be understood in the cultural context, according to the political status quo and in line with the socio-economic processes of a country. They are suspicious of formalized techniques of text analysis, whether wholly or partially computerized, because speech-act theory shows that the intentions of speakers have important implications and that texts have meanings which no computer can capture (Bara/Weale/Bicquelet 2007). While human-based content analysis is accused of being unreliable, computer-based content analysis is castigated for missing out in semantic validity.

Krippendorff argues that such antipodal judgements are useless: 'Ultimately all reading of texts is qualitative, even when certain characteristics of a text are later converted into numbers. The fact that computers process great volumes of text in a very short time does not take away from the qualitative nature of their algorithms...' (Krippendorff 2006: 16). As is mostly the case, black-and-white

pictures are inappropriate and prejudiced for several reasons. Even if no computer can understand intentions and meanings, computer-assisted coding can help identify them. Moreover, there are quite a number of research questions which even wholly computerized approaches can answer validly. It depends first and foremost on the complexity of the context and the complexity of the analytical concepts whether human-based or computer-based approaches are more useful: 'There is a place for the development of computer-applications for content analyses in well-structured contexts and for simple variables' (Krippendorff 2006: 260). Concepts that can be represented by few words or expressions can validly be approached by computer-based coding whereas complex concepts without any fixed set of words must struggle to enhance human reliability.

### 3. The Comparative Manifestos Project

The Comparative Manifestos Project is a long-term co-operative endeavour that went through different phases of group composition, substantive research, forms of funding, and data quality control. It was set up by Ian Budge in 1979 as a working group of the European Consortium for Political Research (ECPR), called the Manifesto Research Group (MRG), and continued as the Comparative Manifestos Project (CMP), hosted by the Social Science Research Center Berlin (WZB) from 1989 onwards.

The British label 'manifesto' refers to what the rest of the world dubs 'election program,' i.e. a text issued by political actors on the occasion of elections in order to raise internal and external support. The term is used for texts with an average length of 20-80 pages published by a political party in order to compete for votes in regional, national, or supra-national level elections. The Manifesto Project employs a human-based content analytical approach relying on a scheme for classifying policy preferences of parties at the national level of party competition. Policy preferences are defined as the currently held attitudes on goals, tasks, and issues about material and ideational interests.

During the first phase of project the major task was to develop a classification of policy preferences that would accommodate the whole content of national election programs comprehensively, but at the same time be parsimonious and, thus, be able to efficiently capture preferences of parties over time and across countries (Budge 2001a, 2001b, 2002). Deductive as well as inductive considerations (Budge 1993a, 1993b) have resulted in 56 Standard Categories covering all relevant policy areas and an average of 98 percent of program contents (Volkens 2001). Comparisons of programs across parties, elections, and countries are facilitated by attributing specific issues to more general policy positions such as 'European Integration: Positive' and 'European Integration: Negative' (see Appendix 1).

While parties can take opposite positions on some issues, there are many valence issues (Stokes 1963) such as environmental protection to which no direct counter-position is feasible. Opposed to many theories which assume parties to compete by taking opposite stands, the saliency theory (Budge/Farlie 1977, Robertson 1976) argues that ‘the key difference between parties is the varying extent to which they mention one-position issues’ (Budge 2001: 52). In case of valence issues, the preferences of parties are captured by uni-polar policy positions such as ‘Environmental Protection: Positive’.

Electoral programs also include preferences about the polity and the politics of the country. The term ‘polity’ refers to the institutional dimension of political systems, covering all political institutions such as electoral rules and principles of decision making as well as the organisations of interest intermediation and governance, the term ‘politics’ refers to all processes of interest intermediation and governance. A classification scheme covering the whole content of national election programs should also be able to code these preferences. Therefore, some of the 56 categories also include polity and politics preferences such as positive and negative references to the constitution or the efficiency of governmental and administrative procedures.

If fitting, all sentences of a program are assigned to one of the 56 preferences. Long sentences containing more than one argument are split into so-called quasi-sentences. Because election programs differ in length, each of the 56 preferences of a party can be given as a percentage of program content by standardizing the number of quasi-sentences of each category according to the total number of quasi-sentences in a program.

### 3.1 Reliability of CMP Data

During the first phase of the project, while the classification scheme was being developed, each group member was responsible for the data collection of his or her own country. During this time, the reliability of the coding was ensured by extensive group discussions.

The second phase of the project started in 1989 when the WZB provided resources for a central organisation and strict supervision of the data collection. The CMP hired coders, usually political scientists from the countries concerned who were native speakers of the relevant language and, therefore, able to work on the original versions of the programs. CMP developed a three-step procedure to ensure coder reliability with (1) an English-language handbook that specifies definitions and general rules, (2) individual responses to a CMP-specific training test given in the handbook, and (3) e-mail correspondence on all coding questions arising from production coding (Budge et al. 2001, Klingemann et al. 2006, Volkens 1992).

The coder training test was called a reliability test. However, it was used for coder training and, therefore, differs in an important aspect from regular reli-

ability tests. In human-based content analysis projects, a group of coders is usually thoroughly trained before the actual coding phase begins. The training phase ends with a reliability test, applied to a text of average length and average difficulty, after which all coding are completed by the trained group of coders. Such a procedure is not feasible in an ongoing comparative project: new coders have to be hired for additional countries, some coders drop out over the years. Therefore, the most difficult text to be found with respect to identifying coding units and preferences was chosen to trigger as many coding mistakes as possible at the first stage of training. Systematic coding errors occurring in many tests during the early years of the CMP were studied to devise further coding rules given in a revised version of the coding handbook (Volkens 2002a). These revisions enhanced the CMP accuracy from .72 for all coders who had studied the first version to .82 for all coders who had studied the second version of the handbook (Volkens 2007). Among the three 'manifestations' of reliability – stability, reproducibility, and accuracy – accuracy is the strongest test. Within a range of  $-1.0$  to  $+1.0$ , it measures the degree of divergence between the coders' test solution and the master copy.

The actual reliability of our data is higher because all coders received encompassing replies to their reliability test solutions in the second stage of the training process. The more they deviated from the master copy, the more explanations were provided on how to do better in the production coding. In the third step of training, all coders were given the opportunity to approach the supervisor via e-mail whenever they had difficulties in interpreting a sentence in their respective programs. The more their test coding differed from the master copy, the more they were urged to use this monitoring device during production coding by translating difficult sentences into English and suggesting possible coding solutions. Most coders used this possibility.

### 3.2 Validity of CMP Data

Krippendorff's (2006) typology distinguishes between Face, Social, and Empirical Validity, and furthermore between eight different classes of empirical evidence. CMP Data quality tests have comprehensively been described elsewhere (Budge et al. 2001, Budge et al. 1987/2008, Klingemann et al. 2006). The following presentation selects some tests to exemplify Krippendorff's ten types of validity.

Tests of CMP data validity were mostly based on left-right positions of parties derived from combinations of the 56 Standard Categories. One left-right index out of many possibilities is computed by simple additions and subtractions of percentages of 26 categories; 13 categories are used to define the left, 13 used to define the right pole of the dimension. The left pole comprises positions of interventions into the market systems, extensions of the welfare state, peace, disarmament and internationalism opposed to the right pole that covers

positions of free market economy, limitations of the welfare state, traditional morality, law and order, military strength, national autonomy, and the national culture. With this measure, left and right pole categories are identified a priori on theoretical grounds and calculated arithmetically. As opposed to inductive measures this procedure renders them a time invariant yardstick.

- 1) *Face Validity* raises the question of whether the data plausibly fit political parties into changing historical contexts. Comparing left-right 'paths' of parties with accepted historical records is a key test of face validity. In most countries and elections this fit is close and plausible; Most programs pass this examination. Even the large number of parties in many of the volatile Central and East European party systems can be sensibly mapped, although in many of these developing party systems the positions of the new parties are more erratic and prone to engage in 'leap-frogging' than in established party systems. But in old and new democracies changes in left-right positions of parties closely fit historical records.
- 2) *Social Validity* in the sense of contributing to public debates is given by the document collection which facilitates transparency in a classic research field of democratic theory. Validations of election programs' content are critical assessments of their use and significance, and, thus, contribute empirical knowledge to debates.
- 3) *Sampling Validity* of the text population in the varieties of the Sampling Selection and the
- 4) *Sampling Representativeness* subtypes are achieved by CMP Data as far as the data collection covers (almost) all significant parties in parliament since World-War II in most of the established democracies and all of the new central and East European ones. The European Union as well as the OECD can be addressed comprehensively.
- 5) *Semantic Validity* defines the degree to which the analytical constructs are captured by the content analytical measures. In case of CMP Data, the historical records of the left-right changes of the US American parties provide a notable example for the scope and range of semantic validity issues in Manifesto research: Although delegates of the American national program conventions are selected progressively up from the grass-roots, the national party programs shift from the left to the right from one president to another. From Eisenhower to Nixon, Reagan, and the two Bush presidencies, the Republicans' programs changed along with their presidents. The Democrats kept a steady position to the left of Republicans until 1992 when Clinton introduced the Third Way. Thereafter, Gore as well as Kerry contributed their own left marks.

Historians especially take an interest in the unexpected twists and turns of events. To them, the CMP Data provide more sensitive measures of party

changes at important political junctures than are otherwise available. Political scientists more interested in long-term party ideologies suggest a smoothing out of the amount of variation in the data. Ironing out policy moves such as Clinton's is also done by statistically minded political scientists to improve 'jagged' time series. But it depends on the chosen analytical concept which indicator is the most appropriate.

- 6) Accordingly, *Functional Validity*, the 'degree to which the analytical construct is vindicated in use' (Krippendorf 2006: 319) is attributable to CMP Data in several respects. Generally speaking, functional validity of manifestos declines when analytical concepts depart from original contexts of electoral party competition.
- 7) *Structural Validity*, which demands evidence by stable networks within analytical constructs, as well as
- 8) *Discriminant Validity*, which seeks counter-evidence, can be tested by sorting parties into groupings to which they theoretically and organisationally belong, i.e. the traditional party families – Communist, Socialist, Religious, Liberal, Conservative – or party groupings in the European Parliament. About two thirds of such memberships can be post-dicted and are discriminated correctly with additional 15 percentages of 'near-misses' or 'near-hits'.
- 9) *Convergent Validity* – do the data concur with other measures of party positions? – has mostly been assessed by comparing programmatic left-right positions to expert surveys in which political scientists across the world were asked to place their national parties on a left-right scale. Manifesto left-right and expert left-right scales correlate in the order of 0.85 – 0.95. This level can be expected because expert scales correlate highly with the traditional party family classification and, indeed, were originally invented as a way for quantifying them (Castles/Mair 1984). Unfortunately, expert judgements scarcely vary. The CMP Left-Right scale uncovers more variation between party systems and, therefore, among parties within party families.
- 10) *Predictive Validity*, defined as occurrence of anticipated observation, can be demonstrated by comparing variations in Left-Right scores with observed behaviour at a later point in time. With respect to programmatic changes, three groups of parties can be differentiated: the drifters who move away from an average position for some time but return to it; the wanderers who move randomly around their average position; and the changers whose final equilibrium score significantly differs from the mean. Such significant preference changes can be expected to go along with other big changes in the party as well. This post-diction was well confirmed for all four changers: The Austrian FPÖ changed behaviour and coalition strategy radically as did the Irish Fine Gael; Norway's Center Party became sceptical towards market economies; The

US Democrats after Clinton moved right on declared as well as on enacted policy. Changes on the Manifesto Left-Right scale anticipate change in observed behaviour and policy outputs as valid and reliable measures can be expected to do (Klingemann/Hofferbert/Budge 1994, Laver/Budge 1992).

### 3.3 Applications of CMP Data

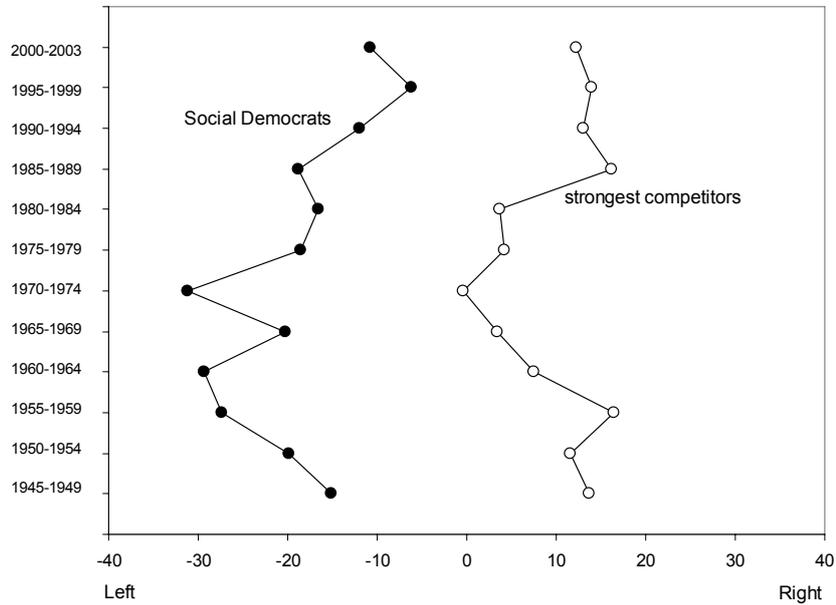
The unique strength of the MRG/CMP data is that it enables us to chart party movements over all elections in which the parties participate (Budge et al. 2001, Klingemann et al. 2006). All indicators, whether they are drawn from single categories or from combinations of positions, can be represented graphically (Budge 1999). In this instance, applications of the MRG/CMP data belong to the group of spatial models in which parties are located in a certain kind of policy space.

While many research topics concerning changes in policy preferences have developed over time, the data has been used repeatedly to address two important aspects: First, on which policy dimensions do parties compete for voters and, second, do voters have a choice between programmatic alternatives? With respect to the first aspect, the MRG/CMP data substantiate survey research results (Mair 2007) on the continuing predominance of the left-right dimension for party competition. That about half of the program content of European parties has been continuously devoted to traditional left and right positions adds considerable evidence to the persistent importance of the left-right dimension for programmatic party competition (Volkens 2004).

The second aspect is of particular relevance because most theories of party development predict parties to converge at the position of the median voter (Bell 1962, Downs 1957, Katz/Mair 1995, Kirchheimer 1966) whereas normative democratic theories require them to present programmatic alternatives for voters to choose between. The following figure compares the mean left-right positions of the big social democratic parties from 15 west European countries to the mean positions of their strongest competitor parties (Volkens 2003, 2006):

A quick look at the figure suffices to show that there was no continual convergence between the two biggest competitor parties. Instead, times of convergence were followed by times of divergence. More striking than any picture of convergence or divergence is that the two major parties of the 15 west European countries were moving in unison into the same directions. Between the 1940s and the 1970s, with the spreading of the welfare state consensus, both competitors moved to left, between the 1980s and the end of the last century, with the spreading of the neo-liberal ideology, both moved to the right.

Figure 1: Left-right changes of European social democrats and their strongest competitors



The breadth of programmatic supplies declined somewhat in many of the long-term democracies when the post-World War II period is compared with the 1990s (Volken/Klingemann 2002). But there was no long-term trend of convergence. Rather, alternating times of convergence and divergence paint a cyclical picture which seems to be largely independent of the number of relevant parties. Although voters were presented with meaningful choices in all 17 post-war democracies under study, programmatic offerings varied considerably in both range and distance (Budge/McDonald 2006). Irrespective of the numbers of parties, the programmatic supply was sometimes finely graded with a broad range of many alternatives similar to each other, whereas at others it was sharply polarised between few programs.

### 3.4 Enhancing the CMP Data Quality

Although the quality of the Manifesto data has been tested frequently with favourable results, also independently of the group (Gabel/Huber 2000, Janda et al. 1995, Laver/Garry 2000), the validity and the reliability of our future updates and extensions need to be enhanced for three reasons. First of all, our data collection emerged as the only basis for time-series estimates across as

many as 50 countries and six decades and, therefore, quickly developed into an approach to measure the 'true' policy positions of parties at election times. For estimating the 'true' position, numerous variations for computing indexes from the MRG/CMP raw data have been suggested (Benoit/Laver/Mikhaylov 2007, Brug 2001, Kaiser/Franzmann 2006, Laver/Garry 2000, Linhart/Shikano 2007, Pappi/Shikano 2004, Pelizzo 2003, Shikano/Pappi 2004), but never been compared comprehensively. We need to know which index is most appropriate to operationalise the different concepts applied to the Manifesto data such as programmatic strategy, programmatic position, issue preference, left-right position, and party ideology. Although all of these concepts are clearly related, they all differ somewhat in their meaning.

To enhance the validity of CMP data, regular quantitative and qualitative cross-validations with other indicators of party preferences and regular pre- and post-coding interviews of the coders are required for distinguishing strategic deviations from underlying long-term party ideologies. In other words, we need to know more about when and under which conditions parties take up strategic programmatic positions instead of 'sincere' ones. Existent cross-validations of programmatic left-right positions and left-right placements by experts hint at two distinctive patterns: extreme left-wing, and, to a lesser degree, extreme right-wing parties fish for voters to the left and right of the political center; in times of party system changes parties scan around for voters (Volkens 2007).

Second, coder reliability, the weak point of all human-based content analysis, is always in need of enhancement via additional rounds of coder training, further entrance tests, and strict supervision. Two test texts of average difficulty for two 'reliability tests proper' (Krippendorff 2006) can be selected to calculate Krippendorff's  $\alpha$ -coefficients for unitizing and scoring.

Third, coding errors can be estimated by raising the number of coders. CMP usually employed only one coder for each document. Two coders for each text allows for a differentiation between the 'true' strategic position and the random coding error based on the assumption that two scores for multiple objects 'resemble' multiple scores for a single distribution (Rothman 2007). To tackle systematic coding errors a third expert can be hired to compare the solutions of the two coders, in particular in case of major deviations between the two coders. Such triangulations can also feed into an improved coding handbook.

## 4. Conclusion

Since the instigation of our project, consolidated datasets have been released about every five years after major book publications. The document collection has been made publicly available at the GESIS-ZA Zentralarchiv für Empirische Sozialforschung (Bruno.Hopp@gesis.org); all currently available content analytical data are published on two CD-ROMs appended to our two latest books (Budge et al. 2001, Klingemann et al. 2006). The MRG/CMP data

collection covers about 3,000 election programs from 780 different parties in more than 50 countries in relation to 525 competitive elections between 1945 and 2003. In 2003, the project received the Dataset Award of the American Political Science Association as ‘an undertaking that is exceptional in each of the (se) respects’ for which the award was established, namely ‘to encourage the development of high-quality datasets that contribute to the shared base of empirical knowledge in comparative politics, to acknowledge the work that goes into their preparation, and to recognize data sets that have made important contributions to the field of comparative politics’ (APSA 2003: 1).

Our classical approach of content analysing election programs provides the only estimates for parties’ policy preferences across 50 countries and six decades (Budge/Bara 2001, Volkens 2002b). The reasons for this monopoly are the contextual features of elections programs. The contexts of manifestos are systems of party competition, all of which differ to some degree in their status quo in policies, politics, and political. Therefore, the issues addressed in the election programs in different countries vary. Across time, election programs are moving targets because new issues come up. These two features impinge upon the possibilities of validly applying content analytical techniques. While dictionaries and algorithms may have been appropriate for estimating left-right positions taken in recent elections, they cannot capture a new issue such as the global financial crisis. In our classical approach, broad comparative concepts cover cross-country and cross-time variations in attitudes about ideas, goals, values, positions, and issues of the ongoing political debate.

Krippendorff (2006) predicts a dire future of computerised content analysis as a mere aid to human-based approaches in all cases of complex contexts and concepts. We are more optimistic due to an integrated view in which computer-based content analysis aids human-based content analysis in dealing with problems of reliability and, vice versa, classical context-sensitive content analysis aids computer-based content analysis in tackling problems of semantic validity.

## References

- APSA (2003): American Political Science Association, Comparative Politics Section, 2003 Data Set Award for the Comparative Manifestoes Project, Award Citation.
- Bara, Judith (2006): Do Parties Reflect Public Concerns? In: Bara, Judith/Weale, Albert (Eds.): *Democratic Politics and Party Competition. Essays in Honour of Ian Budge*. London/New York: Routledge. 105-124.
- Bara, Judith/Weale, Albert/Bicquelet, Aude (2007): *Analysing Parliamentary Debate with Computer Assistance*. In: *Swiss Political Science Review* 13 (4). 578-80
- Bell, Daniel (1962): *The End of Ideology*. New York: Free Press.
- Benoit, Kenneth/Laver, Michael/Mikhaylov, Slava (2007): *Treating Words as Data with Error: Estimating Uncertainty in the Comparative Manifesto Project Meas-*

- ures, Paper presented at the Annual Meeting of the American Political Science Association, Chicago, August 30-September 2, 2007.
- Berelson, Bernhard (1952): *Content Analysis in Communication Research*. New York: Free Press.
- Brug, Wouter van der (2001): *Analysing Party Dynamics by Taking Partially Overlapping Snapshots*. In: Laver, Michael (Ed.): *Estimating the Policy Positions of Political Actors*, London: Sage. 113-132.
- Budge, Ian (1993a): *Issues, Dimensions, and Agenda Change in Postwar Democracies: Longterm Trends in Party Election Programs and Newspaper Reports in Twenty-three Democracies*. In: Riker, William (Ed.): *Agenda Formation*. Ann Arbor: University of Michigan Press. 41-81.
- Budge, Ian (1993b): *Parties, Programs, and Ideology: A Comparative and Theoretical Perspective*. In: *American Review of Politics* 14 (4). 695-716.
- Budge, Ian (1999): *Party Policy and Ideology: Reversing the 1950s?* In: Evans, Geoffrey/Norris, Pippa (Eds.): *Critical Elections. British Parties and Voters in Long-Term Perspective*. London: Sage Publications. 1-21.
- Budge, Ian (2001a): *Validating the Manifesto Research Group Approach. Theoretical Assumptions and Empirical Confirmations*. In: Laver, Michael (Ed.): *Estimating the Policy Positions of Political Actors*. London: Sage. 50-65
- Budge, Ian (2001b): *Validating Party Policy Placements*. In: *British Journal of Political Science* 31 (1). 210-223.
- Budge, Ian (2002): *Mapping Policy Preferences: 21 Years of the Comparative Manifestos Project*. In: *ECPR European Political Science (EPS)* 1 (3). 60-69.
- Budge, Ian/Bara, Judith (2001): *Manifesto-based Research: A Critical Review*. In: Budge, Ian/Klingemann, Hans-Dieter/Volkens, Andrea/Bara, Judith/Tanenbaum, Eric with Fording, Richard C./Hearl, Derek J./Kim, Hee Min/McDonald, Michael/Mendez, Silvia: *Mapping Policy Preferences. Estimates for Parties, Electors, and Governments 1945-1998*. Oxford: Oxford University Press. 51-74.
- Budge, Ian/Farlie, Dennis J. (1977): *Voting and Party Competition*. London/New York: Wiley.
- Budge, Ian/Klingemann, Hans-Dieter/Volkens, Andrea/Bara, Judith/Tanenbaum, Eric with Fording, Richard C./Hearl, Derek J./Kim, Hee Min/McDonald, Michael/Mendez, Silvia (2001): *Mapping Policy Preferences. Estimates for Parties, Electors, and Governments 1945-1998*. Oxford: Oxford University Press, including CD-ROM with MRG/CMP data for 25 countries 1945-1998.
- Budge, Ian/McDonald, Michael D. (2006): *Choices Parties Define. Policy Alternatives in Representative Elections, 17 Countries 1945-1998*. In: *Party Politics* 12 (4). 451-466.
- Budge, Ian/Robertson, David/Hearl, Derek (Eds.) (1987/2008): *Ideology, Strategy and Party Change. Spatial Analysis of Post-War Election Programmes in 19 Democracies*. Cambridge: Cambridge University Press.
- Carmines, Edward G./Zeller, Richard A. (1979): *Reliability and Validity Assessment*. Series: Sage University Papers. Sullivan, John L. (Ed.): *Quantitative Applications in the Social Sciences*. Beverly Hills/London: Sage Publications.
- Castles, Francis C./Mair, Peter (1984): *Left-Right Political Scales: Some Expert Judgements*. In: *European Journal of Political Research* 12 (1). 73-88.
- Downs, Anthony (1957): *The Economic Theory of Democracy*. New York: Harper & Row.

- Electoral Studies (2006): Special Symposium: Comparing Measures of Party Positioning: Expert, Manifesto, and Survey Data 26 (1).
- Früh, Werner (1981/1989): *Inhaltsanalyse*. München: Verlag Ölschläger.
- Gabel, Matthew J./Huber, John D. (2000): Putting Parties in their Place: Inferring Party Left-Right Ideological Positions from Party Manifestos Data. In: *American Journal of Political Science*. 44 (1). 94-103.
- Gerbner, George/Holsti, Ole/Krippendorf, Klaus/Paisley, William J./Stone, Philip J. (Eds.) (1969): *The Analysis of Communication Content: Developments in Scientific Theories and Computer Techniques*. New York: John Wiley.
- German Politics (2009 forthcoming): Policy Preferences of Political Actors in Germany. Special Issue.
- Hofferbert, Richard I./Klingemann, Hans-Dieter/Volkens, Andrea (1995): Election Programmes, Government Statements and Political Action—Political Parties and Their Programmes. In: Thesing, Josef/Hofmeister, Wilhelm (Eds.): *Political Parties in Democracy. Role and Functions of Political Parties in the Political System of the Federal Republic of Germany*. Sankt Augustin: Konrad Adenauer Stiftung. 321-331.
- Holsti, Ole R. (1969): *Content Analysis for the Social Sciences and Humanities*. Reading/Menlo Park/London/Don Mills: Addison-Wesley Publishing Company
- Janda, Kenneth/Harmel, Robert/Edens, Christine/Goff, Patricia (1995): Changes in Party Identity: Evidence from Party Manifestos. In: *Party Politics* 1 (2). 171-196.
- Kaiser, André/Franzmann, Simon (2006): Locating Political Parties in Policy Space. A Reanalysis of Party Manifesto Data. In: *Party Politics*. 12 (2), 163-188.
- Katz, Richard S./Mair, Peter (1995): Changing Models of Party Organization and Party Democracy. In: *Party Politics* 1 (1) 5-28.
- Kirchheimer, Otto (1966): The Transformation of the Western European Party Systems. In: Joseph LaPalombara/Myron Weiner (Eds.): *Political Parties and Political Development*. Princeton: Princeton University Press. 117-200.
- Klingemann, Hans-Dieter/Höhe, Jürgen/Mohler, Peter Ph./Radermacher, Klaus/Züll, Cornelia (1984): *TEXTPACK – Ein programmsystem für sozialwissenschaftliche Inhaltsanalyse*. In: Klingemann, Hans-Dieter (Ed.): *Computergestützte Inhaltsanalyse in der empirischen Sozialforschung*. Zentrum für Umfragen, Methoden und Analysen (ZUMA), Mannheim. Monographien Sozialwissenschaftliche Methoden. Frankfurt/New York: Campus. 15-34.
- Klingemann, Hans-Dieter/Hofferbert, Richard I./Budge, Ian with Keman, Hans/Pétry, Francois/Bergman, Torbjorn/Strøm, Kaare (1994): *Parties, Policies, and Democracy*. Boulder: Westview Press.
- Klingemann, Hans-Dieter/Volkens, Andrea/Bara, Judith/Budge, Ian/Macdonald, Michael (2006): *Mapping Policy Preferences II: Estimates for Parties, Electors and Governments in Eastern Europe, the European Union and the OECD, 1990-2003*. Oxford: Oxford University Press, including CD-ROM with MRG/CMP data for 51 countries 1990 to 2003.
- Krippendorf, Klaus (2006): *Content Analysis. An Introduction to its Methodology*. Thousand Oaks/London/New Dehli: Sage.
- Lasswell, Harold D. (1941): The World Attention Survey: An Exploration of the Possibilities of Studying Attention being Given to the United States by Newspapers Abroad. In: *Public Opinion Quarterly* 5 (3). 456-462.

- Lasswell, Harold D./Leites, Nathan & Associates (Eds.) (1965): *Language of Politics: Studies in Quantitative Semantics*. Cambridge: MIT Press.
- Laver, Michael (Ed.) (2001): *Estimating the Policy Positions of Political Actors*. London: Routledge.
- Laver, Michael/Budge, Ian (Eds.) (1992): *Party Policy and Coalition Government*. New York: St. Martin's Press.
- Laver, Michael/Garry, John (2000): *Estimating Policy Positions from Political Texts*. In: *American Journal of Political Science*. 44 (3). 619-634.
- Lazarsfeld, Paul F./Berelson, Bernard/Gaudet, Hazel (1948): *The People's Choice: How the Voter Makes up his mind in a presidential campaign*. New York: Columbia University Press
- Linhart, Eric/Shikano, Susumo (2007): *Die Generierung von Parteipositionen aus vorverschlüsselten Wahlprogrammen für die Bundesrepublik (1949-2002)*. Arbeitspapiere des Mannheimer Zentrums für Europäische Sozialforschung 98. Mannheim: MZES.
- Mair, Peter (2007): *Left-Right Orientations*. In: Dalton, Russell J./Klingemann, Hans-Dieter (Eds.): *The Oxford Handbook of Political Behaviour*. Oxford: Oxford University Press. 206-222.
- McDiamid, John (1937): *Presidential Inaugural Address: A Study in Verbal Symbols*. In: *Public Opinion Quarterly* 1 (3). 79-82.
- Merten, Klaus (1983). *Inhaltsanalyse. Einführung in Theorie, Methode und Praxis*. Opladen: Westdeutscher Verlag.
- Mochmann, Ekkehard (Ed.) (1980): *Computerstrategien für die Kommunikationsanalyse*. Frankfurt/Main: Campus.
- Namenwirth, J. Zvi (1973): *Wheels of Time and the Interdependence of Value Change in America*. In: *Journal of Interdisciplinary History* 3 (4). 649-683
- Namenwirth, J. Zvi/Weber, Robert P. (1987): *Dynamics of Culture*. Boston: Allen & Unwin.
- Neuendorf, Kimberly A. (2002): *The Content Analysis Guidebook Online*. <http://academic.csuohio.edu/kneuendorf/content>.
- Pappi, Franz Urban/Shikano, Susumu (2004): *Ideologische Signale in den Wahlprogrammen der deutschen Bundestagsparteien 1980 bis 2002*. Arbeitspapiere des Mannheimer Zentrums für Europäische Sozialforschung 76. Mannheim: MZES.
- Pelizzo, Ricardo (2003): *Party Positions or Party Direction: An Analysis of Party Manifesto Data*, In: *West European Politics*. 26 (2). 67-89.
- Roberts, Carl W. (ed.) (1997): *Text Analysis for the Social Sciences: Methods for Drawing Inferences from Texts and Transcripts*. Mahwah: Lawrence Erlbaum.
- Robertson, David (1976): *A Theory of Party Competition*. London: John Wiley & Sons.
- Rothman, Steven (2007): *Understanding Data Quality through Reliability: A Comparison of Data Reliability Assessment in Three International Relations Datasets*. In: *International Studies Review* 9 (3). 437-456.
- Shikano, Susumu/Pappi, Franz Urban (2004): *The Positions of Parties in Ideological and Policy Space: The Perception of German Voters of their Party System*. Arbeitspapiere des Mannheimer Zentrums für Europäische Sozialforschung 73. Mannheim: MZES.

- Stokes, Donald E. (1963): Spatial Models of Party Competition. In: *American Political Science Review* 57 (2). 368-377.
- Stone, Philip J./Dunphy, Dexter C./Smith, Marshall S./Ogilvie, Daniel M. (1966): *The General Inquirer: A Computer Approach to Content Analysis*. Cambridge/London: MIT Press.
- Volkens, Andrea (1992): Content Analysis of Party Programmes in Comparative Perspective: Handbook and Coding Instructions, Technische Berichte FS III/2 T 92-1-1, Berlin: Wissenschaftszentrum Berlin für Sozialforschung (WZB).
- Volkens, Andrea (2001): Manifesto Research since 1979: From Reliability to Validity. In: Laver, Michael (Ed.): *Estimating the Policy Positions of Political Actors*. London: Routledge. 33-49.
- Volkens, Andrea (2002a): Manifesto Coding Instructions (Second Revised Edition). Discussion Paper FS III 02-201, Berlin: Wissenschaftszentrum Berlin für Sozialforschung (WZB).
- Volkens, Andrea (2002b): Manifesto Research: Past, Present, and Future. In: Fuchs, Dieter/Roller, Edeltraud/Weßels, Bernhard (eds.): *Bürger und Demokratie in Ost und West. Studien zur politischen Kultur und zum politischen Prozess. Festschrift für Hans-Dieter Klingemann. Citizens and Democracy in East and West. Studies in Political Culture and Political Process. Festschrift in Honor of Hans-Dieter Klingemann*. Opladen: Westdeutscher Verlag. 462-480.
- Volkens, Andrea (2003): Parteiendemokratie in Europa: Die Frage des Politikangebots. In: Klingemann, Hans-Dieter/Roller, Edeltraud/Volkens, Andrea/Weßels, Bernhard/Alber, Jens: *Entwicklung und Perspektiven der Demokratie in Ost und West. Abschlusskolloquium der Abteilung Institutionen und Sozialer Wandel mit einer Einführung von Jürgen Kocka*. Discussion Paper P 2003-003. Berlin: Wissenschaftszentrum Berlin für Sozialforschung (WZB). 23-28.
- Volkens, Andrea (2004): Policy Changes of European Social Democrats, 1945-1998. In: Bonoli, Giuliano/Powell, Martin (eds.): *Social Democratic Party Policies*. London: Routledge. 21-42.
- Volkens, Andrea (2006): Policy Changes of Parties in European Parliament Party Groups. In: Bara, Judith/Weale, Albert (Eds.): *Democratic Politics and Party Competition. Essays in Honour of Ian Budge*, London/New York: Routledge. 56-81.
- Volkens, Andrea (2007): Strengths and Weaknesses of Approaches to Measuring Policy Positions of Parties. In: *Electoral Studies. Special Symposium: Comparing Measures of Party Positioning: Expert, Manifesto, and Survey Data* 26 (1). 108-120.
- Volkens, Andrea/Klingemann, Hans-Dieter (2002): Parties, Ideologies, and Issues: Stability and Change in 15 European Party Systems 1945-1998. In: Luther, Richard/Müller-Rommel, Ferdinand (Eds.): *Political Parties in the New Europe*, Oxford: Oxford University Press. 143-167.
- Weber, Robert Philip (1990): *Basic Content Analysis*. Newbury Park: Sage.

## Appendix 1: The MRG/CMP Standard Classification Scheme

### *Domain 1: External Relations*

- 101 Foreign Special Relationships: positive
- 102 Foreign Special Relationships: negative
- 103 Anti-Imperialism: positive
- 104 Military: positive
- 105 Military: negative
- 106 Peace: positive
- 107 Internationalism: positive
- 108 European Integration: positive
- 109 Internationalism: negative
- 110 European Integration: negative

### *Domain 2: Freedom and Democracy*

- 201 Freedom and Human Rights: positive
- 202 Democracy: positive
- 203 Constitutionalism: positive
- 204 Constitutionalism: negative

### *Domain 3: Political System*

- 301 Decentralisation: positive
- 302 Centralisation: positive
- 303 Governmental and Administrative Efficiency: positive
- 304 Political Corruption: negative
- 305 Political Authority: positive

### *Domain 4: Economy*

- 401 Free Enterprise: positive
- 402 Incentives: positive
- 403 Market Regulation: positive
- 404 Economic Planning: positive
- 405 Corporatism: positive
- 406 Protectionism: positive
- 407 Protectionism: negative
- 408 Economic Goals
- 409 Keynesian Demand Management: positive
- 410 Productivity: positive
- 411 Technology and Infrastructure: positive
- 412 Controlled Economy: positive
- 413 Nationalisation: positive

- 414 Economic Orthodoxy: positive
- 415 Marxist Analysis: positive
- 416 Anti-Growth Economy: positive

*Domain 5: Welfare and Quality of Life*

- 501 Environmental Protection: positive
- 502 Culture: positive
- 503 Social Justice: positive
- 504 Welfare State Expansion
- 505 Welfare State Limitation
- 506 Education Expansion
- 507 Education Limitation

*Domain 6: Fabric of Society*

- 601 National Way of Life: positive
- 602 National Way of Life: negative
- 603 Traditional Morality: positive
- 604 Traditional Morality: negative
- 605 Law and Order: positive
- 606 Social Harmony: positive
- 607 Multiculturalism: positive
- 608 Multiculturalism: negative

*Domain 7: Social Groups*

- 701 Labour Groups: positive
- 702 Labour Groups: negative
- 703 Agriculture: positive
- 704 Middle Class and Professional Groups: positive
- 705 Minority Groups: positive
- 706 Non-Economic Demographic Groups: positive