Political Science Research and Methods Vol 4, No. 3, 641–650 September 2016
© The European Political Science Association, 2015
doi:10.1017/psrm.2015.38

Analyzing Manifestos in their Electoral Context A New Approach Applied to Austria, 2002–2008*

MARTIN DOLEZAL, LAURENZ ENNSER-JEDENASTIK, WOLFGANG C. MÜLLER AND ANNA KATHARINA WINKLER

We present a new method to analyze party manifestos to benefit the placement of political parties per se and to advance the study of elections. Our method improves on existing manual coding approaches by (1) generating semantically complete units based on syntax, (2) standardizing units into a subject–predicate–object structure, and (3) employing a fine-grained and flexible hierarchical coding scheme. We evaluate our approach by comparing estimates for the 2002, 2006, and 2008 Austrian national elections with those yielded by previous studies that employ the entire range of available measurement strategies. We also demonstrate how we link our new manifesto data with other kind of data produced in the Austrian National Election Study, especially mass and elite (party candidate) surveys.

In this research note we present a new method of extracting party position data from election manifestos and other types of political text. The core of our procedure is a hand-coded relational, kernel sentence-based method of content analysis as originally developed by Kleinnijenhuis and colleagues for the analysis of media content (e.g., Kleinnijenhuis and Pennings 2001). Based on the adaptations made by Kriesi et al. (2008), we have further developed this approach, which now has three core features: (1) a unitization process based on syntax leading to semantically complete units, which are typically smaller than natural sentences; (2) a relational structure that uses a "predicate" to link a "subject" (an actor) with an "object" (either another actor or a policy issue); and (3) a fine-grained hierarchical issue coding scheme that allows for flexibility in analyzing the data.

Our approach is a new attempt to meet the classic challenges of extracting party positions from political text. The first challenge is unitizing where the goal is to arrive at homogeneous and unambiguous units. Here a controversy exists concerning the usage of "quasi-sentences" (as traditionally used by the Comparative Manifestos Project (CMP), e.g., Klingemann et al. 2006) and natural sentences (Däubler et al. 2012). Quasi-sentences divide natural sentences primarily based on content criteria. Our method splits natural sentences strictly according to grammatical rules. The resulting units are more reliable than quasi-sentences and typically shorter (and hence easier to code) than natural sentences. The second challenge is producing a valid coding scheme that contains enough detail to capture the relevant policy positions without becoming too fine-grained for coders to make reliable distinctions between the categories. Our scheme takes benefit from a three-level hierarchical organization that allows for extracting the full content of manifestos. It permits cost-efficient adaptations to new developments and produces highly

* Martin Dolezal, Assistant Professor (martin.dolezal@univie.ac.at); Laurenz Ennser-Jedenastik, Assistant Professor (laurenz.ennser@univie.ac.at); Wolfgang C. Müller, Professor (wolfgang.mueller@univie.ac.at) and Anna K. Winkler, Pre-doctoral Researcher, Department of Government, University of Vienna, Vienna (katharina.winkler@univie.ac.at). Research for this note was conducted under the auspices of the Austrian National Election Study (AUTNES), a National Research Network (NFN) sponsored by the Austrian Science Fund (FWF) (S10903-G11). The authors gratefully acknowledge helpful comments by two reviewers and the corresponding editor, Kenneth Benoit. To view supplementary material for this article, please visit http://dx.doi.org/10.1017/psrm.2015.38

https://doi.org/10.1017/psrm.2015.38 Published online by Cambridge University Press

reliable results. In addition, it goes far beyond extracting policy saliencies and party positions allowing, in particular, for the analysis of inter-actor relations.

We have developed the method of coding manifestos presented here in the context of the Austrian National Election Study (AUTNES). The method is designed to meet the needs of an "integrated" election study (i.e., one paying equal attention to parties, voters, and the mass media). This requires that information extracted from manifestos can be precisely linked to information from other party or media textual sources and to mass and elite surveys. Our method provides such "connectivity" and suggests answers to the problems of existing manifesto research the vibrant scholarly debate has identified. As with most methods, there is nothing country specific to its basic principles. Rather, it can be used for extracting information from manifestos in all languages that share the basic syntax with the German language (all Indo-Germanic languages and beyond). Our coding scheme is designed to cover party issue competition in contemporary Europe. Although the specifics of issue coding may need adaptation over space and time, our method is designed to allow for such flexibility. Nevertheless, as our empirical study relates to Austria, all examples and applications relate to this case and the most recent elections (already coded) in particular.

In the next section, we describe the unitizing and coding procedures. Here we also present reliability measures. In the subsequent section, we discuss the face validity of our results and engage in cross-validation. Specifically, we compare our results for the 2002, 2006, and 2008 Austrian national elections with those yielded by established measurement strategies. Here we also show how to link our new manifesto data with mass and elite (party candidate) surveys and thus put them into an electoral context. Throughout this report we refer to an online appendix where we present detailed information on several aspects mentioned in the main text.

THE METHOD

Starting with *unitization*, we have developed a procedure that takes the texts' syntactic structure into account but is not sensitive to writing style (short versus long sentences), nor is unitization based on the units' thematic contents. Thus, our approach differs from employing a purely numeric criterion (i.e., a fixed number of words) as proposed by Laver and Garry (2000), but also from the CMP's "quasi-sentences," which result from dividing natural sentences into thematic units. Our system draws on Chomsky's (1957, 1965) phrase structure model. According to Chomsky, texts can be unitized into the smallest possible but nevertheless grammatically complete sentences ("kernel sentences"). A natural sentence may consist of one or more kernel sentences. As sentences in manifestos often include various issues, it is necessary to unitize them into these smaller units to extract the full information. For example, in 2008 the Austrian People's Party (ÖVP) proposed, "We will finance the care fund with privatization revenues". The ÖVP thus positioned itself positively toward the introduction of a care fund as well as to privatization in general. Based on the kernel sentence approach, we extract two units from this sentence (online Appendix 1).

Compared with the CMP, we extract on average more than twice as many observations (factor 2.16). However, the observation counts per manifesto correlate strongly ($r = 0.90$), even though, as demonstrated in online Appendix 1, especially long natural sentences lead to multiple kernel sentences.

Däubler et al. (2012) expressed some concerns regarding the reliability of unitizing by human coders. Yet, our results (Table 1) display excellent overall agreement, with only one of 16 manifestos closely missing the conventional benchmark of 0.8 (Krippendorff's α). This performance is a result of high-quality coder selection and training: unitizing and coding is carried out by outstanding BA and MA students, of which a total of 17 have been recruited over the

https://doi.org/10.1017/psrm.2015.38 Published online by Cambridge University Press

TABLE 1 *Inter-Coder Reliability of the Unitizing Procedure*

Party	2002	2006[a]	2008
Social Democratic Party of Austria (SPÖ)	0.84	0.89	0.91
Austrian People's Party (ÖVP)	0.84	0.92	0.88
Freedom Party of Austria (FPÖ)	0.84	0.91	0.90
Greens	0.89	0.85	0.90
Alliance for the Future of Austria (BZÖ)	–[b]	0.93	0.86
Liberal Forum (LIF)	0.77	–[c]	0.90
Total number of coders involved	9	4	7

Note: figures are Krippendorff's αs for the number of kernel sentences extracted from each natural sentence by rotating pairs of coders. Each cell entry represents agreement between two coders.
[a]Data for 2006 are based on random samples of 10 percent of the manifesto sentences.
[b]The BZÖ was founded in 2005.
[c]The LIF did not run in 2006.

course of five years. Equipped with an extensive codebook, they undergo an intense training process of several weeks, including group sessions as well as individual meetings and feedback by AUTNES researchers. Each manifesto is unitized twice, with pairs of coders rotating between manifestos. Between four and nine different coders are involved in the unitizing of each set of manifestos for the years 2002–2008. In order to produce a single set of units that represents the starting point for further coding, inter-coder disagreements are resolved authoritatively by AUTNES researchers.

Not only does the unitization procedure generate highly reliable coding units, it also allows us to capture considerably more policy detail than other approaches. Yet, the overall issue emphasis in a manifesto does not change if we compare our results with sentence-based saliencies (correlations are >0.97), indicating that the unitizing procedure does not bias the saliencies toward one issue area or the other (online Appendix 5).

In a second step, the units are transformed into statements following a subject–predicate–object structure, e.g., "ÖVP // for // privatization." We differentiate three types of statements as follows: (1) an actors' position toward an issue (*actor–issue statements*), (2) the relationship between actors (*actor–actor statements*), and (3) statements describing external circumstances such as economic developments (*reality statements*). In all three types the "subject" (usually the party) positions itself with respect to an "object" that can either be a policy issue or another actor. Subject and object are linked by a "predicate" indicating a positive (+1), neutral (0), or negative (−1) relationship.

Distinguishing these types of statements offers a number of advantages when it comes to data analysis: scholars interested in parties' positions will use *actor–issue statements*. Here, the numerical value of the predicate is the basis for calculating policy positions. However, our scheme also provides comprehensive information about saliencies, as issues are recorded for all three types of statements. In addition, *actor–actor statements* are a rich source for the study of interactions of parties or politicians (e.g., negative campaigning).

In a third step, the issues (and actors, see online Appendix 3) recorded in the statements are categorized. Any such scheme is required to be comprehensive and capture specific as well as general topics; it should also be open to new issues. Our coding scheme covers >650 categories and is structured into three hierarchically nested levels as follows: 15 *issue categories* (level 1), 88 *issue sub-categories* (level 2), and over 650 *issues* (level 3). Coders are trained to allocate each statement on level 3. Table 2 shows the 15 issue categories on level 1; all others are displayed in online Appendix 2.

https://doi.org/10.1017/psrm.2015.38 Published online by Cambridge University Press

TABLE 2 *Issue Categories (Level 1)*

Code	Label	Code	Label
10000	Economy	18000	Infrastructure
11000	Welfare state	19000	Society
12000	Budget	20000	Environmental protection
13000	Education and culture	21000	Reform of institutions
14000	Security	22000	Immigration
15000	Army	23000	Government formation
16000	Foreign policy	24000	Ideology
17000	Europe		

TABLE 3 *Inter-Coder Reliability at Three Levels of the Issue Coding Scheme*

			Level 1 (15 Categories)		Level 2 (88 Categories)		Level 3 (650+ Categories)	
Year	Coders	Manifestos	Mean	Range	Mean	Range	Mean	Range
2002	7	5	0.85	0.81–0.90	0.79	0.75–0.83	0.69	0.64–0.72
2006	4	5	0.85	0.81–0.89	0.80	0.77–0.85	0.69	0.63–0.74
2008	7	6	0.84	0.78–0.89	0.79	0.76–0.82	0.68	0.65–0.74

Note: figures are Krippendorff's αs for manifestos double coded by rotating pairs of coders. Each reported mean is the average of agreements for all pairs of coders across all manifestos per election. The levels refer to our system of categories. The actual coding is done at level 3 (see the main text).

The wording of the individual issues on level 3 is close to the common use of language, e.g., "unemployment" or "tuition fees" rather than "labor market" or "education." Coders spotting a keyword in the statement can carry out a targeted search within the issue list. This often leads to the appropriate category. Our method relieves coders from assigning specific issues to broader and more abstract categories and thus enhances efficiency and data validity (online Appendix 3).

Coders are allowed to come up with new issues by adding them to the list when coding the manifestos.[1] Later, AUTNES researchers collectively decide on the new issues' inclusion. As a consequence, the coding scheme is flexible enough to adequately represent future contents of party competition or, when applied to old documents, contents that had long before withered away. It is thus suitable for longitudinal analyses and for being applied to other types of text. To be sure, the benefit of flexibility certainly comes at a cost in terms of consistency over time. Yet, as the alternative would be to stick with a given scheme even when new and highly salient issues arise, this trade-off is worth making.

Taking problems of reliability of human coding seriously, we double code all statements by rotating pairs of coders. Coders are assigned to manifestos that they had not worked on in the unitizing stage. Table 3 presents the average reliability scores across parties per year. Reliability increases as we move from the very specific issues (level 3) to the broad policy areas on level 1. In other words, coders may disagree as to whether a statement should be coded, for instance, under "trade unions" or "collective bargaining," but agree about the superordinate categories ("employees" on level 2, "economy" on level 1). Applying Krippendorff's benchmark of 0.8, it can be concluded that our initial coding results (i.e., before checking and resolving inter-coder differences)

[1] However, this is only a last resort in case a statement could not be validly coded. In all, <1 percent of all statements thus far required the creation of a new level 3 issue.

https://doi.org/10.1017/psrm.2015.38 Published online by Cambridge University Press

are highly reliable already at the intermediate level of our issue scheme (for more on uncertainty, see online Appendix 4). In order to produce the final data set, the two sets of codes are merged into an authoritative version with AUTNES researchers making the final decision on cases where coders disagree.

This fine-grained coding scheme in combination with the innovative unitizing procedure allows us to pick up much more policy information—as well as information on actors—than other approaches. When averaging the results for the manifestos in all three elections, we find that 33.1 percent of the sentences contain issues from different level-3 categories, 24.8 percent from different level-2 categories, and 16.6 percent from different level-1 categories (online Appendix 5). Combining a very detailed coding scheme with our unitization method thus considerably increases the validity of our measurement.

EMPIRICAL RESULTS: CROSS-VALIDATION AND COMPARISONS

Although the aim of our manifesto analysis approach is much more ambitioned than simply reproducing the position estimates that could be generated with less time- and resource-consuming methods, cross-validation is still necessary to assess the plausibility of our results. We draw these external data from the four most common approaches to the measurement of party policy positions: the analysis of manifesto content by human coders and computer algorithms as well as expert and party elite surveys. We conduct comparisons on different levels of aggregation such as a general left–right scale, a two-dimensional configuration, and an example of a specific issue position that allows for easy comparison with other data sources.

Deriving policy positions from the coding of a myriad of individual statements requires some method of aggregation. For the construction of a general left–right scale, we used the literature on left versus right in both "old" and "new politics" (e.g., Fuchs and Klingemann 1990; Corbetta, Cavazza and Roccato 2009). Our aim is to accommodate a broad range of policies; on average, 55 percent of all statements are included in the calculation of the left–right score (online Appendix 6). The CMP's RILE scale covers 50 percent in the same sample of manifestos. Nevertheless, we abstain from grouping issue areas such as "Europe" into this ideological dimension. Online Appendix 2 informs on all issues included.

Once the decision of which issues to use for the left–right scale has been settled, means are calculated for the predicates' values across all relevant actor–issue statements. The result is a value between −1 and 1, which represent the left and right extreme ends of the scale, respectively (for the reliability of this scale, see online Appendix 7). This mode of aggregation, mathematically equivalent to $(R-L)/(R+L)$, differs from the standard CMP procedure that applies the formula $(R-L)/N$. We thus follow the suggestions made by Kim and Fording (1998) because their formula yields results that are independent of the manifesto's share of units that are substantively irrelevant for this scale (online Appendix 8).

Figure 1 depicts the party placements along the general left–right scale from a variety of sources: the CMP,[2] the Chapel Hill Expert Survey (CHES), the AUTNES candidate survey, and the two automated text analysis algorithms Wordscores and Wordfish.[3]

[2] The CMP RILE scale has a theoretical range from −100 to 100. Empirically, however, most values are confined to a much smaller interval.

[3] Wordscores estimates use the 1999 manifestos as reference texts and assigned scores from the 1999 CHES (Steenbergen and Marks 2007). We used the "lrgen" variable for estimating the general, "lrecon" for the economic, and "galtan" for the cultural left–right scale. Wordfish left–right scores are based on the full texts. For the two-dimensional solution, we used the manifesto sections devoted to either economic or cultural issues (online Appendix 9).

https://doi.org/10.1017/psrm.2015.38 Published online by Cambridge University Press

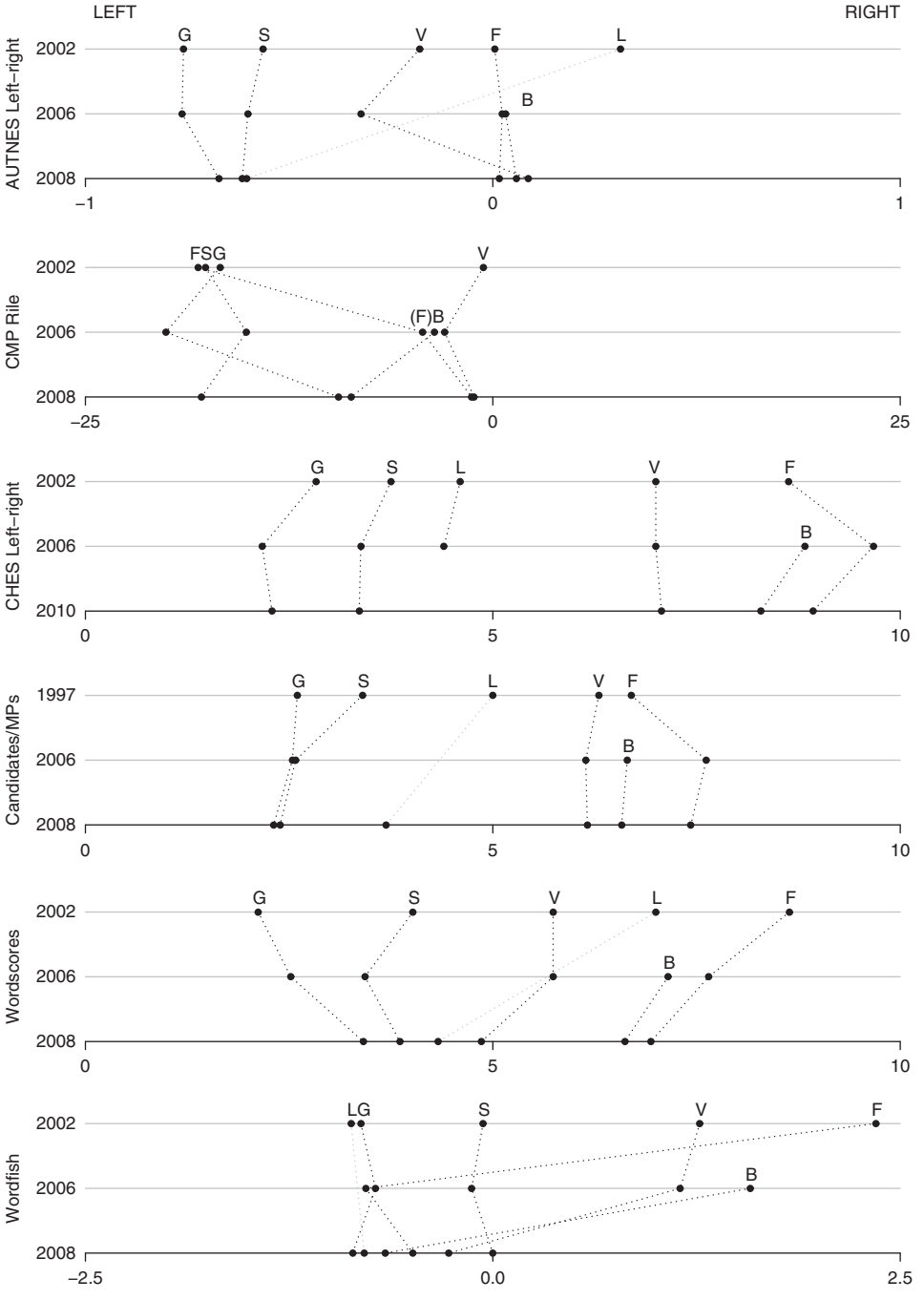


Fig. 1. General left–right scale

Source: Austrian National Election Study (AUTNES) (Müller et al. 2012), CMP (manifesto-project.wzb.eu), Chapel Hill Expert Survey (CHES) (Hooghe et al. 2010), Candidates/MPs (Müller et al. 2001; Müller, Eder and Jenny 2012).

Party abbreviations: B = BZÖ; F = FPÖ; G = Greens; L = LIF; S = SPÖ; V = ÖVP. See Table 1 for the parties' full names.

https://doi.org/10.1017/psrm.2015.38 Published online by Cambridge University Press

TABLE 4 *Correlations Between Different Left–Right Measures*

	AUTNES	CMP	Expert Survey	Candidates/MPs	Wordscores
General left–right					
CMP	0.70				
Expert survey	0.84	0.67			
Candidates/MPs	0.89	0.72	0.98		
Wordscores	0.90	0.49	0.88	0.89	
Wordfish	0.18	0.46	0.18	0.19	0.02
Economic left–right					
CMP	0.50				
Expert survey	0.74	0.67			
Candidates/MPs	0.88	0.70	0.91		
Wordscores	0.84	0.67	0.83	0.95	
Wordfish	0.05	0.48	0.44	0.26	0.19
Cultural left–right					
CMP	0.91				
Expert survey	0.92	0.86			
Candidates/MPs	0.90	0.87	0.96		
Wordscores	0.80	0.78	0.89	0.78	
Wordfish	0.06	−0.01	0.09	0.08	0.39

Source: see notes below Figure 1.
Note: the two-dimensional CMP scores are derived according to the scaling procedure suggested by Linhart and Shikano (2009).[4] CHES variables "lreco" and "galtan" are used for expert survey data. Elite survey data are party averages on questions referring to socio-economic and cultural issues.

The AUTNES manifesto data show a relatively stable party landscape with an ordinal ranking of Greens–SPÖ–ÖVP–BZÖ–FPÖ from left to right—a result that appears quite plausible, not only for those acquainted with Austrian politics but also when compared with other sources of party positional data.

In comparison with the CMP, AUTNES party placements seem superior. To anyone familiar with Austrian politics, it appears implausible that the right-wing populist FPÖ is reported as the most left-wing party in 2002 (as the CMP data suggest). Similarly, the CMP data awkwardly position the Greens and the BZÖ (an FPÖ split-off) at almost the same location in 2008. There is only one party placement in the AUTNES data that may cause concern at first sight: the Liberals assuming the most rightist position in 2002. This is due to their manifesto being devoted mostly to economic issues, whereas remaining relatively silent on cultural ones. In contrast, the thematically more balanced 2008 manifesto moves the Liberals to the left, close to the SPÖ.

Comparing our results with those derived by other methods, we find overwhelming agreement for most parties on the left–right dimension in most elections (Table 4; online Appendix 10). The correlations are particularly high with data from expert surveys (CHES), the Wordscores approach, and the AUTNES candidate survey. Interestingly, the AUTNES manifesto data show the least degree of agreement with the Wordfish and the CMP scores, even though all three are derived from the same documents. However, the comparison across data sources suggests that the AUTNES manifesto estimates provide a more accurate representation of the party landscape than the CMP data that share the property of exclusive reliance on hand-coded manifestos.

[4] We use the Linhart and Shikano (2009) method mostly because it comes very close to our own allocation of policy areas to the economic and cultural dimensions. It therefore represents the best available CMP-based comparison with the two-dimensional AUTNES scores.

https://doi.org/10.1017/psrm.2015.38 Published online by Cambridge University Press

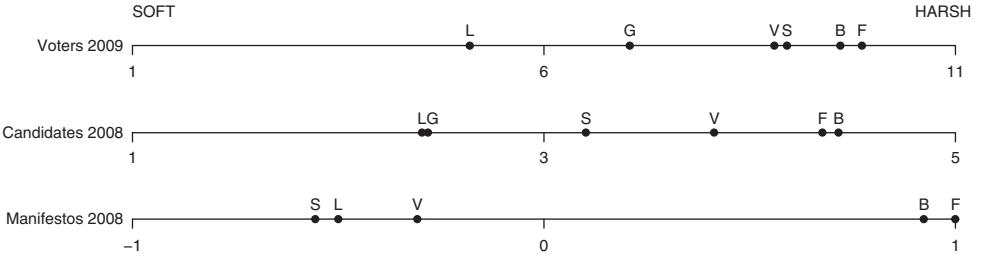


Fig. 2. Criminal punishment (soft versus harsh), Austrian National Election Study (AUTNES) data
Source: voters 2009 (AUTNES 2009), all others see Figure 1.
Note: the Greens made no statement about criminal punishment in their 2008 manifesto.
Party abbreviations: B = BZÖ; F = FPÖ; G = Greens; L = LIF; S = SPÖ; V = ÖVP. See Table 1 for the parties' full names.

Although the left–right continuum may be a useful tool for voters and parties in their everyday communication, in many cases it clearly represents an over-simplification of the space in which parties compete. For many West European party systems, there is indeed good evidence of at least two dimensions that structure the political space: one pertaining to economic, the other to cultural questions (Kriesi et al. 2008; Dolezal et al. 2013). The AUTNES economic scale correlates highly with expert and elite survey data and the Wordscores estimates, but only at 0.50 with the CMP scores. The AUTNES cultural scale displays very high agreement with most other sources.

Although there is thus some disagreement as to the "correct" party placements, we can still conclude that also the two-dimensional AUTNES estimates appear valid, albeit that there is greater consensus as to the placement of parties along the cultural dimension than there is agreement regarding the economic one. The lower correlations for the economic dimension may also be owing to the fact that the variation along all economic scales is consistently lower across data sources than on the cultural scales, whereas measurement error should be similar.

For all three scales, the AUTNES estimates outperform the CMP scores in terms of correlations with elite and expert surveys. Neither elite data, which were recommended especially by de Swaan (1973), nor expert survey data are perfect (see Budge 2000; Mair 2001). Yet, compared with manifestos both are less prone to be biased by cheap talk and the use of policy rhetoric as a strategic device. Finding the AUTNES manifesto estimates in high agreement with both kinds of survey data thus gives particular credibility to the estimates produced.

Spatial representations of policy positions are theoretically possible at almost any level of abstraction. Typically, however, party placements are presented as aggregate measurements, comprising observations from a large number of lower-level categories. Although such practice may serve some research purposes well, it constitutes a very crude approach in other circumstances. Assume, for instance, that a researcher wants to compare party positions on very specific issues to corresponding question items in a voter or elite survey. The fine-grained nature of the AUTNES coding procedures easily allows for the construction of policy scales also at such a low level of abstraction.

To provide an example, Figure 2 presents data from several AUTNES sources on attitudes toward criminal punishment, where the manifesto estimates refer to all statements about issues such as prison sentences, preventive custody, or extrajudicial settlements (online Appendix 2). The voter and candidate surveys reflect agreement or disagreement with the statement that criminal offenders should face harsher punishment. The manifesto data display a divide

https://doi.org/10.1017/psrm.2015.38 Published online by Cambridge University Press

between the major parties (SPÖ, ÖVP) taking a moderate to soft position and the populist right (FPÖ, BZÖ) advocating tough measures against criminal offenders. The voters, by contrast, are largely united in holding rather harsh attitudes.

It is obvious that party and voter placements are not identical across sources. There are real differences between, for instance, the masses and elites. Yet, with the exceptions noted above, the ordinal rankings of the parties are comparable. Moreover, one needs to take into account that the uncertainty associated with position estimates rises as the number of issue-related statements in a manifesto decreases (Benoit, Laver and Mikhaylov 2009). The trade-off between higher specificity and lower uncertainty must, of course, always be acknowledged. The advantage of the AUTNES scheme is to allow researchers to choose virtually any point along this continuum.

CONCLUSION

In this research note, we have presented our new approach to the analysis of parties' manifestos in their electoral context. In so doing, we have aimed at realizing two goals: first, our aim was to conceptualize manifesto analysis in a way that advances the empirical study of elections by locating party positions at almost any level of specificity. Second, our task was to offer resolutions to the problems in extant manifesto research that the contemporary debate on political text analysis has identified.

Our cross-validations of party placements derived from AUTNES manifesto data with the main alternatives have revealed enough commonalities to claim the overall validity of our data. The remaining differences can partly be attributed to differences in the real world phenomena studied and thus are not particularly relevant here. With regard to variation among the different manifesto-based party placements, our results appear superior if checked for plausibility before the background of qualitative accounts of party competition.

Of course, our content analysis method requires considerable resources compared with other methods. Therefore, skeptics may question whether gains in precision justify the effort. We think it does. On the one hand, better measured variables should lead to better results when included in statistical analyses. On the other, our approach provides greatly enhanced opportunities to investigate novel research questions on many core topics of political science including elections, parties, coalitions, and government policies. This flexibility in analysis should provide multiple and long-term returns on investment and thus justify the resource input.

REFERENCES

Austrian National Election Study (AUTNES). 2009. 'AUTNES Post-Post Election Survey 2009'. Available at www.autnes.at, accessed August 2011.

Benoit, Kenneth, Michael Laver, and Slava Mikhaylov. 2009. 'Treating Words as Data with Error: Uncertainty in Text Statements of Policy Positions'. *American Journal of Political Science* 53(2):495–513.

Budge, Ian. 2000. 'Expert Judgements of Party Policy Positions: Uses and Limitations in Political Research'. *European Journal of Political Research* 37(1):103–13.

Chomsky, Noam. 1957. *Syntactic Structures*. The Hague: Mouton & Co.

Chomsky, Noam. 1965. *Aspects of the Theory of Syntax*. Cambridge, MA: The Massachusetts Institute of Technology Press.

Corbetta, Piergiorgio, Nicoletta Cavazza, and Michele Roccato. 2009. 'Between Ideology and Social Representations: Four Theses Plus (a New) One on the Relevance and the Meaning of the Political Left and Right'. *European Journal of Political Research* 48(5):622–41.

https://doi.org/10.1017/psrm.2015.38 Published online by Cambridge University Press

Däubler, Thomas, Kenneth Benoit, Slava Mikhaylov, and Michael Laver. 2012. 'Natural Sentences as Valid Units for Coded Political Texts'. *British Journal of Political Science* 42(4):937–51.

de Swaan, Abram. 1973. *Coalition Theories and Cabinet Formations*. Amsterdam: Elsevier.

Dolezal, Martin, Nikolaus Eder, Sylvia Kritzinger, and Eva Zeglovits. 2013. 'The Structure of Issue Attitudes Revisited: A Dimensional Analysis of Austrian Voters and Party Elites'. *Journal of Elections, Public Opinion & Parties* 23(4):423–43.

Fuchs, Dieter, and Hans-Dieter Klingemann. 1990. 'The Left-Right Schema'. In M. Kent Jennings, Jan W. van Deth, Samuel H. Barnes, Felix J. Heunks, Ronald Inglehart, Max Kaase, Hans-Dieter Klingemann and Jacques J. A. Thomassen (eds), *Continuities in Political Action. A Longitudinal Study of Political Orientations in Three Western Democracies*. 203–34. Berlin and New York, NY: Walter de Gruyter.

Hooghe, Liesbet, Ryan Bakker, Anna Brigevich, Catherine de Vries, Erica Edwards, Gary Marks, Jan Rovny, Marco Steenbergen, and Milada Vachudova. 2010. 'Reliability and Validity of the 2002 and 2006 Chapel Hill Expert Surveys on Party Positioning'. *European Journal of Political Research* 49(5):687–703.

Kim, Heemin, and Richard C. Fording. 1998. 'Voter Ideology in Western Democracies, 1946–1989'. *European Journal of Political Research* 33(1):73–97.

Kleinnijenhuis, Jan, and Paul Pennings. 2001. 'Measurement of Party Positions on the Basis of Party Programmes, Media Coverage and Voter Perceptions'. In Michael Laver (ed.), *Estimating the Policy Positions of Political Actors*. 162–82. London Routledge.

Klingemann, Hans-Dieter, Andrea Volkens, Judith Bara, Ian Budge, and Michael McDonald. 2006. *Mapping Policy Preferences II. Estimates for Parties, Electors, and Governments in Eastern Europe, European Union, and OECD 1990–2003*. Oxford: Oxford University Press.

Kriesi, Hanspeter, Edgar Grande, Romain Lachat, Martin Dolezal, Simon Bornschier, and Timotheos Frey. 2008. *West European Politics in the Age of Globalization*. Cambridge: Cambridge University Press.

Laver, Michael, and John Garry. 2000. 'Estimating Policy Positions from Political Texts'. *American Journal of Political Science* 44(3):619–34.

Linhart, Eric, and Susumu Shikano. 2009. 'Ideological Signals of German Parties in a Multi-Dimensional Space: An Estimation of Party Preferences Using the CMP Data'. *German Politics* 18(3):301–22.

Mair, Peter. 2001. 'Searching for the Positions of Political Actors. A Review of the Approaches and a Critical Evaluation of Expert Surveys'. In Michael Laver (ed.), *Estimating the Policy Positions of Political Actors*. 10–30. London Routledge.

Müller, Wolfgang C., Marcelo Jenny, Barbara Steininger, Martin Dolezal, Wilfried Philipp, and Sabine Preisl-Westphal. 2001. *Die österreichischen Abgeordneten. Individuelle Präferenzen und politisches Verhalten*. Vienna: Facultas.

Müller, Wolfgang C., Martin Dolezal, Laurenz Ennser-Jedenastik, and Anna Katharina Winkler. 2012. 'AUTNES Manifesto Coding Dataset 2008, Public Use Version 1.0.', July 2012 (www.autnes.at).

Müller, Wolfgang C., Nikolaus Eder, and Marcelo Jenny. 2012. 'AUTNES Candidate Survey 2008, Public Use Version 1.1.', October 2012 (www.autnes.at).

Steenbergen, Marco, and Gary Marks. 2007. 'Evaluating Expert Judgments'. *European Journal of Political Research* 46(3):347–66.

https://doi.org/10.1017/psrm.2015.38 Published online by Cambridge University Press