

Online Appendix A–D to

How do they get in? Radical parties and government
participation in European democracies

by Andreas Fagerholm

published in *Government and Opposition*

Online Appendix A: On coalition formation

The theory of coalition formation is usually described as consisting of two broad traditions – one emphasizing office-seeking goals, and another one focusing on policy-seeking incentives (e.g. Laver 1998; Nyblade 2013). The office-seeking tradition, to begin with, rests upon the assumption that gaining office is the primary goal of political actors. Inspired by von Neumann and Morgenstern (1953), Riker (1962: 32–3; see also Gamson 1961) thus suggested that politicians ‘*create coalitions just as large as they believe will ensure winning and no larger*’ (i.e., they create ‘minimal winning coalitions’). This, essentially policy-blind, ‘size principle’ was later revised to take account also of parties’ policy preferences. Leiserson (1968: 775), for example, argued that the bargaining process over coalition formation is easier with fewer members and, hence, that parties prefer minimal winning coalitions consisting of as few parties as possible. The policy component becomes even more explicit in the argumentation presented by Axelrod (1970: 170–1), whose ‘minimal connected winning coalitions’ consist of parties that are ideologically adjacent to each other.

Despite the role ascribed to policy in the models provided by Leiserson and, above all, Axelrod, the full-blown policy-seeking conception of government formation – i.e., the argument that political actors want to get into office mainly for ideological reasons – is usually attributed to de Swaan (1973). According to his policy distance theory, a politician strives to ‘*bring about a winning coalition in which he is included and which he expects to adopt a policy that is as close as possible [...] to his own most preferred policy*’ (de Swaan 1973: 88, emphasis added). Starting from this general assumption, later theoretical contributions in the policy-seeking tradition have focused on uni- as well as multidimensional policy spaces and emphasized the role of centrally located parties as key players in the coalition formation process (e.g. Baron 1991: 149; Crombez 1996: 9; Laver and Schofield 1990: 111; Laver and Shepsle 1996: 69–70; Schofield 1993: 19; van Roozendaal 1990: 331, 1992: 10). More recent research has also highlighted possible institutional constraints on government formation, such as party system characteristics, size and composition requirements and rules regarding the electoral system and the operation of the government (Strøm et al. 1994).

Empirical evidence suggests that both office- and policy-driven factors are important in the coalition formation process and, moreover, that institutional constraints can have effects on coalition bargaining. In an early empirical assessment, Franklin and Mackie (1984) demonstrated that coalition formation sometimes is dominated by ideology but more often by size. Of the more recent contributions, the studies focusing on individual parties’ access to office are of particular importance for this paper. Here, Warwick (1996; see also Isaksson 2005) showed that *formateurs* tend to prefer smaller partners that position themselves relatively close to the *formateur*, while Mattila and Raunio (2004) and Tavits (2008), respectively, emphasized the importance of avoiding electoral losses and adhering to the coalition agreement. Döring and Hellström (2013), finally, observed that Western European governments generally include ideologically moderate parties while governments in Central Eastern Europe tend to be formed mainly based on electoral and parliamentary strength (cf., however, also Savage 2014). (I also note that the research on government formation also include other strands. A few prominent examples are Martin and Stevenson’s

(2001) highly influential examination of the characteristics of potential governments (see also Savage 2016) and Glasgow et al.'s (2011) examination of who gets the prime ministership.)

References

- Axelrod R** (1970) *Conflict of Interest: A Theory of Divergent Goals with Applications to Politics*. Chicago: Markham Publishing Company.
- Baron DP** (1991) A Spatial Bargaining Theory of Government Formation in Parliamentary Systems. *American Political Science Review* **85**(1), 137–64.
- Crombez C** (1996) Minority Governments, Minimal Winning Coalitions and Surplus Majorities in Parliamentary Systems. *European Journal of Political Research* **29**(1), 1–29.
- de Swaan A** (1973) *Coalition Theories and Cabinet Formations: A Study of Formal Theories of Coalition Formation Applied to Nine European Parliaments After 1918*. Amsterdam: Elsevier Scientific Publishing Company.
- Döring H and Hellström J** (2013) Who Gets into Government? Coalition Formation in European Democracies. *West European Politics* **36**(4), 683–703.
- Franklin MN and Mackie TT** (1984) Reassessing the Importance of Size and Ideology for the Formation of Governing Coalitions in Parliamentary Democracies. *American Journal of Political Science* **28**(4), 671–92.
- Gamson WA** (1961) A Theory of Coalition Formation. *American Sociological Review* **26**(3), 373–82.
- Glasgow G, Golder M and Golder SN** (2011) Who ‘Wins’? Determining the Party of the Prime Minister. *American Journal of Political Science* **55**(4), 937–54.
- Isaksson G-E** (2005) From Election to Government: Principal Rules and Deviant Cases. *Government and Opposition* **40**(3), 329–57.
- Laver M** (1998) Models of Government Formation. *Annual Review of Political Science* **1**, 1–25.
- Laver M and Schofield N** (1990) *Multiparty Government: The Politics of Coalition in Europe*. Oxford: Oxford University Press.
- Laver M and Shepsle KA** (1996) *Making and Breaking Governments: Cabinets and Legislatures in Parliamentary Democracies*. Cambridge: Cambridge University Press.
- Leiserson M** (1968) Factions and Coalitions in One-party Japan: An Interpretation Based on the Theory of Games. *American Political Science Review* **62**(3), 770–87.
- Martin LW and Stevenson RT** (2001) Government Formation in Parliamentary Democracies. *American Journal of Political Science* **45**(1), 33–50.
- Mattila M and Raunio T** (2004) Does Winning Pay? Electoral Success and Government Formation in 15 West European Countries. *European Journal of Political Research* **43**(2), 263–85.
- Nyblade B** (2013) Government Formation in Parliamentary Democracies. In Müller WC and Narud HM (eds), *Party Governance and Party Democracy: Festschrift to Kaare Strøm*. New York: Springer, pp. 13–31.
- Riker WH** (1962) *The Theory of Political Coalitions*. New Haven, CT: Yale University Press.

- Savage LM** (2014) Who Gets In? Ideology and Government Membership in Central and Eastern Europe. *Party Politics* **20**(4), 547–62.
- Savage L** (2016) Party System Institutionalization and Government Formation in New Democracies. *World Politics* **68**(3), 499–537.
- Schofield N** (1993) Political Competition and Multiparty Coalition Governments. *European Journal of Political Research* **23**(1), 1–33.
- Strøm K, Budge I and Laver MJ** (1994) Constraints on Cabinet Formation in Parliamentary Democracies. *American Journal of Political Science* **38**(2), 303–35.
- Tavits M** (2008) The Role of Parties' Past Behavior in Coalition Formation. *American Political Science Review* **102**(4), 495–507.
- van Roozendaal P** (1990) Centre Parties and Coalition Cabinet Formations: A Game Theoretic Approach. *European Journal of Political Research* **18**(3), 325–48.
- van Roozendaal P** (1992) The Effect of Dominant and Central Parties on Cabinet Composition and Durability. *Legislative Studies Quarterly* **17**(1), 5–36.
- von Neumann J and Morgenstern O** (1953) *Theory of Games and Economic Behavior*, 3rd ed. Cambridge: Cambridge University Press.
- Warwick PV** (1996) Coalition Government Membership in West European Parliamentary Democracies. *British Journal of Political Science* **26**(4), 471–99.

Online Appendix B: Parties included in the analysis

Table B1: Radical right and radical left parties included (in main analysis)^a

Country	Party (Abrv)	Position	Observations
AUT	Freedom Party of Austria (FPÖ)	Right	90, 94, 95, 99, 02(a–b), 06, 08, 13
BEL	<i>Flemish Interest (VB)</i>	Right	see appendix D3
BUL	Attack	Right	05, 09, 13, 14
	United Patriots	Right	17
CRO	Croatian Democratic Union (HDZ) ^b	Right	00(a–c)
CYP	Progressive Party of Working People (AKEL) ^c	Left	96, 01(a–b), 06(a), 11(b)
CZE	<i>Communist Party of Bohemia and Moravia (KSČM)</i>	Left	see appendix D3
DEN	Danish People’s Party (DF)	Right	98, 01, 05, 07, 11(a–b)
	Red-Green Alliance (EL)	Left	94, 98, 01, 05, 07, 11(a–b)
	Socialist People’s Party (SF) ^d	Left	90(a–b), 94, 98, 01, 05, 07, 11(a–b)
ESP	United Left (IU)	Left	93, 96, 00, 04, 08, 11, 15
EST	Estonian National Independence Party (ERSP)	Right	92
FIN	Finns Party (PS)	Right	99, 03, 07, 11(a–b)
	Left Alliance (VAS)	Left	91, 95, 99, 03, 07, 11(a–b)
FRA	French Communist Party (PCF)	Left	93, 97(a–b), 02, 07(a–b), 17
	<i>National Front (FN)</i>	Right	see appendix D3
GER	<i>Alternative for Germany (AfD)</i>	Right	see appendix D3
	<i>The Left</i>	Left	see appendix D3
GRE	<i>Communist Party of Greece (KKE)</i>	Left	see appendix D3

Continued on next page

Table B1 – *Continued from previous page*

Country	Party (Abrv)	Position	Observations
	<i>Golden Dawn (XA)</i>	Right	see appendix D3
	Independent Greeks (ANEL)	Right	12(a–b), 15
	Syriza ^e	Left	90, 96, 00, 04, 07, 09, 12(a–b)
HUN	<i>Jobbik</i>	Right	see appendix D3
IRL	Democratic Left (DL)	Left	92(a–b), 97
ISL	Left-Green Movement (VG)	Left	99, 03, 07, 09, 13
ITA	Lega Nord (LN)	Right	92(a–b), 94, 96(a–b), 01(a–b), 06, 08, 13
	Communist Refoundation Party (PRC)	Left	92(a–b), 94, 96(a–b), 01(a–b), 06
	Party of Italian Communists (PdCI)	Left	01, 06(a–b)
LAT	For Fatherland and Freedom/Latvian Nat. Indep. Mov. (TB/LNNK) ^f	Right	93(a–b), 95(a–b), 98(a–c), 02(a–d), 06(a–d)
	National Alliance (NA)	Right	10, 11(a–b), 14
	Latvian Unity Party (LVP)	Left	95(a–d)
LTU	Party Order and Justice (PTT)	Right	04(a–c), 08, 12
NED	Party for Freedom (PVV)	Right	06, 10, 12
	Pim Fortuyn List (LPF)	Right	02, 03
	<i>Socialist Party (SP)</i>	Left	see appendix D3
NOR	Progress Party (FrP)	Right	93, 97(a–b), 01, 05, 09
	Socialist Left Party (SV)	Left	93, 97(a–b), 01, 05, 09
POL	League of Polish Families (LPR)	Right	01(a–c), 05(a–b)
	Self-Defence of the Republic of Poland (SRP)	Right	01(a–c), 05(a–b)
POR	Left Bloc (BE)	Left	99, 02, 05, 09, 11
	Portuguese Communist Party (PCP) ^g	Left	91, 95, 99, 02, 05, 09, 11
ROU	Greater Romania Party (PRM)	Right	92(a–c), 96, 00(a–b), 04(a–b)

Continued on next page

Table B1 – *Continued from previous page*

Country	Party (Abrv)	Position	Observations
	Romanian National Unity Party (PUNR)	Right	90, 92(a–c), 96
SLO	<i>Slovenian National Party (SNP)</i>	Right	see appendix D3
SVK	Slovak National Party (SNS)	Right	90, 92(a–c), 94, 98, 06, 10
	Union of the Workers of Slovakia (ZRS)	Left	94
SWE	Left Party (V)	Left	91, 94, 98, 02, 06, 10, 14
	<i>Sweden Democrats (SD)</i>	Right	see appendix D3

^a Parties given in *italics* are ‘irrelevant’ (but politically more or less significant) parties only included in the robustness checks (see appendix D3 for details). Regarding included countries, I do not consider parties from the less consolidated or non-democratic regimes of Eastern Europe (Belarus, Moldova, Russia and Ukraine), Caucasus (Armenia, Azerbaijan and Georgia) and the Balkans (Albania, Bosnia and Herzegovina, Kosovo, North Macedonia, Montenegro and Serbia). I also exclude the European micro-states (Andorra, Liechtenstein, Monaco and San Marino) and Switzerland (due to its directional government and fixed coalitions). (Countries not included in the main data set due to lack of at least one *relevant* radical party are Belgium, Czech Republic, Germany, Hungary, Luxembourg, Malta, Slovenia and the United Kingdom.) Borderline cases not included (and not classified as radical right/left in most studies) are conservative populist parties such as Fidesz in Hungary and Law and Justice in Poland, post-fascist conservative parties such as National Alliance in Italy (dissolved in 2009) and regionalist radical left parties in, above all, Spain (e.g. the Galician Nationalist Bloc).

^b Prime minister party in 1992 and in 1995, no longer radical right after 2000 (Mudde 2007: 305).

^c Prime minister party 2006b and 2011a.

^d SF became a full member of the European Green Party in 2014 and hence ceased to be a radical left party (Keith and March 2016: 5).

^e Synaspismos –2004; SYRIZA prime minister party 2015a and 2015b.

^f TB 1993–95; TB prime minister party 1995c and 1995d.

^g Competes in elections as a part of Unitary Democratic Coalition, together with Ecologist Party ‘The Greens’.

References

- Keith D and March L (2016) Introduction. In March L and Keith D (eds), *Europe’s Radical Left: From Marginality to the Mainstream?* London: Rowman and Littlefield, pp. 1–23.
- Mudde C (2007) *Populist Radical Right Parties in Europe*. Cambridge: Cambridge University Press.

Online Appendix C: Calibration, scales and calculations

Calibration

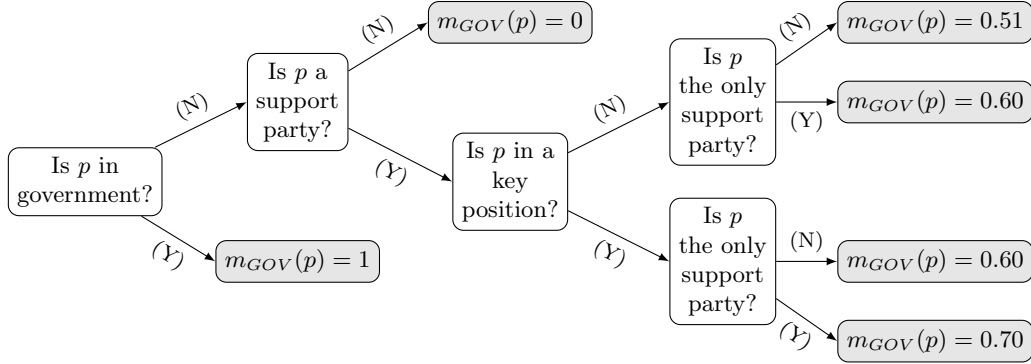


Figure C1: Calibration of outcome

Table C1: Calibration of conditions: base variable descriptives and thresholds

Factor	Min	P_{20}	P_{50}	P_{80}	Max	Avg	SD	τ_{ex}	τ_{cr}	τ_{in}
M	0.50	4.60	7.39	13.91	35.71	9.56	7.22	2.50 ₍₁₎	5.00 ₍₁₎	10.00 ₍₁₎
								22.50 ₍₂₎	20.00 ₍₂₎	15.00 ₍₂₎
S	-28.60	-2.43	0.00	2.54	18.81	-0.22	6.14	-1.00	-0.01	4.00
W	6.67	23.00	33.00	43.61	66.41	33.27	11.27	35.00	30.00	25.00
C	0.00	—	—	—	1.00	0.50	0.50	—	—	—
R_{sc}	0.00	1.63	2.40	3.65	5.48	2.56	1.22	3.65	2.56	1.63
R_{se}	-3.97	-2.31	-1.32	-0.05	2.20	-1.21	1.32	-2.31	-1.21	-0.05
P_{sc}	-5.07	-2.25	-0.60	0.00	0.00	-1.08	1.29	-2.25	-1.08	0.00
P_{se}	-7.39	-3.80	-2.08	-0.47	0.00	-2.29	1.74	-3.80	-2.29	-0.47
N	2.19	3.34	4.42	5.44	7.67	4.41	1.24	7.50	5.00	2.50
E	0.00	0.00	9.00	34.80	71.00	16.62	19.47	4.00	8.00	12.00

Note: The categorical (Boolean) condition C is ‘calibrated’ using the direct method. For further details, see main text. R_{sc} and P_{sc} cover only observations of radical right parties, R_{se} and P_{se} only observations of radical left parties.

Table C2: Formulas used for transformational membership assignment (linear)

Concept type	Formula
Positive end-point concepts	$m_A(x, \tau_{[\dots]}, p, q) = \begin{cases} 0 & \text{if } \tau_{\text{ex}} \geq x_i, \\ \frac{1}{2} \left(\frac{\tau_{\text{ex}} - x_i}{\tau_{\text{ex}} - \tau_{\text{cr}}} \right)^p & \text{if } \tau_{\text{ex}} < x_i \leq \tau_{\text{cr}}, \\ 1 - \frac{1}{2} \left(\frac{\tau_{\text{in}} - x_i}{\tau_{\text{in}} - \tau_{\text{cr}}} \right)^q & \text{if } \tau_{\text{cr}} < x_i \leq \tau_{\text{in}}, \\ 1 & \text{if } \tau_{\text{in}} < x_i. \end{cases}$
Negative end-point concepts	$m_A(x, \tau_{[\dots]}, p, q) = \begin{cases} 1 & \text{if } \tau_{\text{in}} \geq x_i, \\ 1 - \frac{1}{2} \left(\frac{\tau_{\text{in}} - x_i}{\tau_{\text{in}} - \tau_{\text{cr}}} \right)^q & \text{if } \tau_{\text{in}} < x_i \leq \tau_{\text{cr}}, \\ \frac{1}{2} \left(\frac{\tau_{\text{ex}} - x_i}{\tau_{\text{ex}} - \tau_{\text{cr}}} \right)^p & \text{if } \tau_{\text{cr}} < x_i \leq \tau_{\text{ex}}, \\ 0 & \text{if } \tau_{\text{ex}} < x_i. \end{cases}$
Positive mid-point concepts	$m_A(x, \tau_{[\dots]}, p, q) = \begin{cases} 0 & \text{if } \tau_{\text{ex1}} \geq x_i, \\ \frac{1}{2} \left(\frac{\tau_{\text{ex1}} - x_i}{\tau_{\text{ex1}} - \tau_{\text{cr1}}} \right)^p & \text{if } \tau_{\text{ex1}} < x_i \leq \tau_{\text{cr1}}, \\ 1 - \frac{1}{2} \left(\frac{\tau_{\text{in1}} - x_i}{\tau_{\text{in1}} - \tau_{\text{cr1}}} \right)^q & \text{if } \tau_{\text{cr1}} < x_i \leq \tau_{\text{in1}}, \\ 1 & \text{if } \tau_{\text{in1}} \leq x_i \leq \tau_{\text{in2}}, \\ 1 - \frac{1}{2} \left(\frac{\tau_{\text{in2}} - x_i}{\tau_{\text{in2}} - \tau_{\text{cr2}}} \right)^q & \text{if } \tau_{\text{in2}} < x_i \leq \tau_{\text{cr2}}, \\ \frac{1}{2} \left(\frac{\tau_{\text{ex2}} - x_i}{\tau_{\text{ex2}} - \tau_{\text{cr2}}} \right)^p & \text{if } \tau_{\text{cr2}} < x_i \leq \tau_{\text{ex2}}, \\ 0 & \text{if } \tau_{\text{ex2}} < x_i. \end{cases}$

Source: Thiem and Duşa (2013).

Note: x_i is the base variable value, and p and q are parameters for controlling the degree of concentration and dilation (normally set at 1).

Policy scales

The categories included in the scales are given in table C3. The socioeconomic scale is originally created by Laver and Garry (2000), based on categories identified by Laver and Budge (1992). The proposed sociocultural scale resembles a scale proposed by McDonald and Mendes (2001). I have, however, removed the categories per606 (right) and per706 (left). On a closer examination, these categories appears to have low face validity as indicators of sociocultural right and left, respectively. Category per606 includes favourable mentions of, e.g., help for fellow people, civil society and public spiritedness – features that may be associated with the sociocultural left as well as with the sociocultural right. Category per706, in turn, includes favourable references not only to groups typically associated with sociocultural left politics, such as women, but also to groups equally favoured by the sociocultural right (e.g. old or middle-aged people). To get an idea of the construct validity of the proposed scales, I report results from a robust confirmatory factor analysis in table

C4 below. I follow Lowe et al. (2011; see also Gemenis 2013) and measure parties' socio-cultural and socioeconomic positions using logit scales. The logit scale (θ) is calculated as follows:

$$\theta = \log(R + o') - \log(L + o').$$

R is the share of 'quasi-sentences' coded into categories assigned to the right pole and L the share of 'quasi-sentences' coded into categories assigned to the left pole. $o' = 100 \frac{0.5}{N}$ (with N being the total number of sentences in the manifesto).

Table C3: Categories included in the policy scales

Left categories	Right categories
<i>Sociocultural scale</i>	
National Way of Life: neg. (per602)	National Way of Life: pos. (per601)
Traditional Morality: neg. (per604)	Traditional Morality: pos. (per603)
Multiculturalism: pos. (per607)	Law and Order: pos. (per605)
Underpriv. Min. Gr.: pos. (per705)	Multiculturalism: neg. (per608)
<i>Socioeconomic scale</i>	
Market Regulation (per403)	Free Market Economy (per401)
Economic Planning (per404)	Incentives: pos. (per402)
Protectionism: pos. (per406)	Protectionism: neg. (per407)
Controlled Economy (per412)	Economic Orthodoxy (per414)
Nationalization (per413)	Welfare State Limitation (per505)

Table C4: Policy scales: robust confirmatory factor analysis

Scale	CFI	RMSEA	SRMR
Sociocultural scale	0.74	0.05	0.03
Socioeconomic scale	0.89	0.03	0.03

Note: The data used for the computation covers all significant parties in Western and Central Eastern Europe from 1975 onwards ($N = 1,970$). The CFI for the sociocultural scale increases to 0.92 (RMSEA and SRMR remain unchanged) when focusing only on national way of life (per601, per602), traditional morality (per603, per604) and multiculturalism (per607, per608). Because of their high face validity, per605 and per705 are, however, retained in the scale.

Calculation of inclusion and coverage

The inclusion (or consistency) score expresses the degree (between 0 and 1) to which a proposition about the necessity or sufficiency of a condition (x_i) for an outcome (y_i) is true. According to conventional standards, the sufficiency inclusion ($INCL_S$) score should preferably be set at 0.750 or higher, while the lower cutoff for necessity inclusion ($INCL_N$) usually is set at 0.900 or higher (cf., however, Thiem 2016: 482). $INCL_S$ is calculated as follows:

$$INCL_S(\mathbf{X}) = \frac{\sum_{i=1}^I \min(x_i, y_i)}{\sum_{i=1}^I x_i}. \quad (0a)$$

INCL_N , by contrast, is calculated thus:

$$\text{INCL}_N(\mathbf{X}) = \frac{\sum_{i=1}^I \min(x_i, y_i)}{\sum_{i=1}^I y_i}. \quad (0b)$$

Another important parameter of fit in QCA is coverage. Sufficiency coverage (COV_S) measures how much (between 0 and 1) of the outcome is covered by the solution. It is calculated using formula (0b). Necessity coverage (COV_N) gives the relevance of a necessary condition and is calculated using formula (0a). For details, see Ragin (2006).

References

- Gemenis K** (2013) What to Do (and Not to Do) with the Comparative Manifestos Project Data. *Political Studies* **61**(S1), 23–43.
- Laver MJ and Budge I** (1992) Measuring Policy Distances and Modeling Coalition Formation. In Laver MJ and Budge I (eds), *Party Policy and Government Coalitions*. New York: St. Martin's Press, pp. 15–40.
- Laver M and Garry J** (2000) Estimating Policy Positions from Political Texts. *American Journal of Political Science* **44**(3), 619–34.
- Lowe W et al.** (2011) Scaling Policy Preferences from Coded Political Texts. *Legislative Studies Quarterly* **36**(1), 123–55.
- McDonald MD and Mendes SM** (2001) The Policy Space of Party Manifestos. In Laver M (ed.), *Estimating the Policy Position of Political Actors*. London: Routledge, pp. 90–114.
- Ragin CC** (2006) Set Relations in Social Research: Evaluating their Consistency and Coverage. *Political Analysis* **14**(3), 291–310.
- Thiem A** (2016) Standards of Good Practice and the Methodology of Necessary Conditions in Qualitative Comparative Analysis. *Political Analysis* **24**(4), 478–84.
- Thiem A and Duşa A** (2013) *Qualitative Comparative Analysis with R: A User's Guide*. New York: Springer.

Online Appendix D1: Results – uncovered observations (G)

As originally emphasized by Ragin (1987: 164, 2000: 4), QCA is not only a technique for data analysis but also a research approach. An essential part of this approach is the dialogue between ideas and evidence. Following Schneider and Wagemann (2012: ch. 1), the ‘analytical moment’ (i.e., the construction and analysis of the truth table) should ideally be followed by a more in depth evaluation of the findings. This evaluation can follow different strategies – it can be more or less systematic and it can emphasize different aspects (typical cases, deviant cases etc.) of the solution model (for more detailed discussions, see Goertz 2017: ch. 3; Schneider and Rohlfing 2013, 2016). With only about 26 per cent (18 of 68) of the positive observations covered (i.e., the observations located in triangle B of figure D1), a focus on the large amount of uncovered positive observations (i.e., on the observations located in the upper left quadrant A of figure D1) seems advisable. In what follows, I conduct a preliminary discussion on theoretical, methodological and empirical constraints of the model by examining the truth table in more detail.

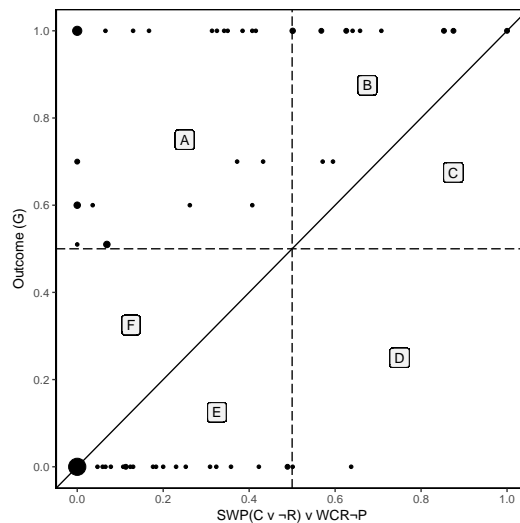


Figure D1: (Enhanced) XY plot

One, rather obvious, explanation for the mediocre solution coverage is the relatively low (0.29) mean set membership in G . With a clear majority (74 per cent) of the observations being fully out of the set of governing parties, finding sufficient paths becomes difficult. In order to shed some light on the uncovered cases I revert to the truth table and examine, first, minterms that do not pass the chosen inclusion cutoff but yet show some, albeit very limited, evidence of sufficiency (i.e., the two minterms in table 1 where inclusion is above 0.500 but below 0.750): Is it feasible to include these minterms in the minimization process? Second, I focus on *all* (2+43) observed minterms with an inclusion score below 0.750: What can be said about the positive observations that are ‘hidden’ in minterms with low inclusion scores? Is it, perhaps, possible to find patterns in these minterms, and are there certain

types of cases for which the solution model is particularly ill suited?

The two minterms with inclusion scores above 0.500 but below 0.750 cover, in total, only six observations (see table 1). Of these, four have an outcome value below 0.5. These observations would – like FrP in 1997(b) and LVP in 1995(c) in $sm_{G.2}$ (see table 2) – locate themselves in the bottom right quadrant D of an updated XY plot and hence cast serious doubt on the statement of sufficiency. Coding these minterms as contradictions (‘C’) rather than as negatives (‘0’) and including them in a subsequent minimization process is, thus, not an attractive option. Although the inclusion of these four minterms would lead to an increase in model coverage, the accompanying substantial decrease in the model inclusion score and, in particular, the growth of the number of true logical contradictions (TLCs) would generate a solution model that is considerably weaker than $sm_{G.2}$. I note, however, that a minimization of all minterms with $INCL > 0.500$ gives a single solution model with an inclusion score of 0.679 and a coverage score of 0.371. It is a submodel of $sm_{G.2}$ and reads as follows:

$$WCP \vee WCR \vee SW \neg RP \Leftrightarrow G.$$

Table D1: Selected minterms

Minterm	Conditions						<i>N</i> (Tot.)	<i>N</i> (Pos.)
	<i>M</i>	<i>S</i>	<i>W</i>	<i>C</i>	<i>R</i>	<i>P</i>		
07	0	0	0	1	1	0	1	1
12	0	0	1	0	1	1	1	1
14	0	0	1	1	0	1	1	1
24	0	1	0	1	1	1	3	3
28	0	1	1	0	1	1	2	2
39	1	0	0	1	1	0	1	1
01	0	0	0	0	0	0	8	1
08	0	0	0	1	1	1	6	3
20	0	1	0	0	1	1	10	3
37	1	0	0	1	0	0	5	2
38	1	0	0	1	0	1	6	3
40	1	0	0	1	1	1	3	2
41	1	0	1	0	0	0	5	2
45	1	0	1	1	0	0	7	3
48	1	0	1	1	1	1	5	1
49	1	1	0	0	0	0	8	1
50	1	1	0	0	0	1	5	2
52	1	1	0	0	1	1	9	3
53	1	1	0	1	0	0	6	3
54	1	1	0	1	0	1	4	2
55	1	1	0	1	1	0	3	1
56	1	1	0	1	1	1	14	6
61	1	1	1	1	0	0	11	3

Note: Listed are minterms with $INCL < 0.750$ and with at least one positive observation (i.e., an observation where $G > 0.5$).

A second option is to examine the observed negative minterms in a more direct manner. From a case-based perspective, these 45 minterms can be organized into three groups. The largest group consists of 22 minterms that hold only negative outcome observations (i.e., no

observations in the field corresponding to triangle B of figure D1). These are of least importance if the purpose is to increase our understanding of radical parties' government inclusion and are, hence, not discussed here (see, however, subsection 'Paths to government exclusion ($\neg G$)'). Of the remaining 23 minterms, six hold only positive outcome observations. In these cases, the relevant observations would fall into the field corresponding to triangle B of figure D1, with no observations in the quadrant D and with sufficiency inclusion hence being violated 'only' by the (irrelevant) observations falling into in triangle E. A closer look at these minterms (see the first six rows of table D1) reveals that eight of the nine relevant observations are of Western European radical left parties: the Cypriot AKEL in 2001(b) and 2006(a), the Danish EL in 1994 and 1998, the Italian PRC in 1996(b) and PdCI in 2006, the Icelandic VGF in 2009 and the Irish DL in 1992(b). In addition, the Slovakian SNS in 1994 is covered. For these cases, factors related to ideology seem to be somewhat more relevant than size-related factors – at least two of the conditions C , R and P are present in all minterms.

The remaining 17 minterms hold observations with positive as well as negative outcomes; sufficiency inclusion is, hence, violated by cases in the fields corresponding to both triangle E and quadrant D of figure D1. These minterms include in total 41 positive observations. The main conclusion from an investigation of these minterms corresponds to what has already been indicated in the paper: observations of governing Western European radical left parties seem to be especially hard to cover by $sm_{G.2}$ (and $sm_{G.1}$). If the nine observations briefly discussed above are included, 92.3 (24/26) per cent of all positive observations of (Western European; there are only two positive observations of Central and Eastern European radical left parties in the data.) radical left parties remain uncovered by the solution model. The share of uncovered observations is clearly lower (but still fairly high) for radical right parties, both in Central and Eastern (56.7 per cent, or 17/30) and in Western (58.3 per cent, or 7/12) Europe. These differences appear also by looking at the within coverage (wicov)-scores in table D2. These observations further underline the need for a re-specification of the theoretical framework, with a special (but not exclusive) focus on finding complementary explanations for radical left government participation.

Table D2: Government inclusion of radical parties (parsimonious solution): within coverage-scores per region and party family

	COV	WICOV (CEE)	WICOV (WE)	WICOV (RRPs)	WICOV (RLPs)
<i>SWCP</i>	0.234	0.358	0.220	0.386	0.118
<i>SW¬RP</i>	0.123	0.183	0.137	0.201	0.088
<i>WCR¬P</i>	0.059	0.033	0.162	0.110	0.083

Note: The scores are calculated using the SetMethods package for R (Medzihorsky et al. 2017).

References

Goertz G (2017) *Multimethod Research, Causal Mechanisms, and Case Studies: An Integrated Approach*. Princeton, NJ: Princeton University Press.

- Medzihorsky J et al.** (2017) SetMethods: Functions for Set-theoretic Multi-method Research and Advanced QCA. R package version 2.3.
- Ragin CC** (1987) *The Comparative Method: Moving Beyond Qualitative and Quantitative Strategies*. Berkeley: University of California Press.
- Ragin CC** (2000) *Fuzzy-set Social Science*. Chicago: University of Chicago Press.
- Schneider CQ and Rohlfing I** (2013) Combining QCA and Process Tracing in Set-theoretic Multi-method Research. *Sociological Methods and Research* **42**(4), 559–97.
- Schneider CQ and Rohlfing I** (2016) Case Studies Nested in Fuzzy-set QCA on Sufficiency: Formalizing Case Selection and Causal Inference. *Sociological Methods and Research* **45**(3), 526–68.
- Schneider CQ and Wagemann C** (2012) *Set-theoretic Methods for the Social Sciences: A Guide to Qualitative Comparative Analysis*. Cambridge: Cambridge University Press.

Online Appendix D2: Results – additional tables and figures

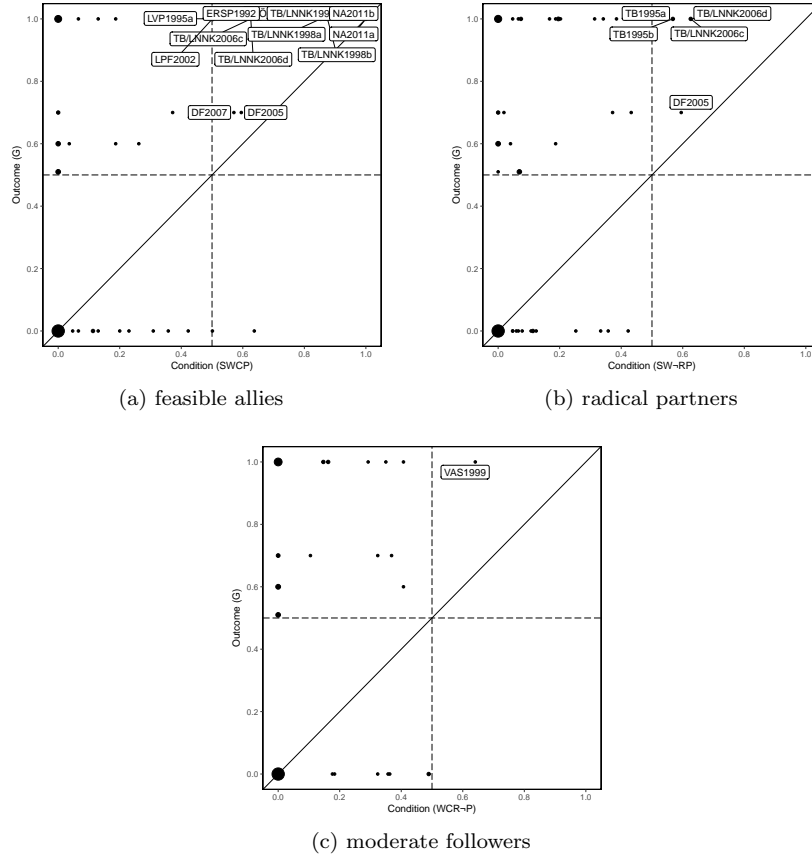


Figure D2: (Enhanced) XY plots for the three sufficient paths in $sm_{G.2}$

Table D3: Prime implicant (PI) chart (outcome G)

PIs	Minterms				
	64	32	62	58	47
$\neg MWCR$	–	X	–	–	–
$SWCP$	X	X	X	–	–
$SWCR$	X	X	–	–	–
$SW\neg RP$	–	–	X	X	–
$WCR\neg P$	–	–	–	–	X
$MWC\neg RP$	–	–	X	–	–

Note: ‘**X**’ = minterm covered by PI, ‘–’ = minterm not covered by PI.

Table D4: Prime implicant (PI) chart (outcome $\neg G$)

PIs	Minterms									
	17	20	19	3	36	1	49	9	43	25
$\neg M\neg C$	X	X	X	X	-	X	-	X	-	X
$\neg M\neg P$	X	-	X	X	-	X	-	X	-	X
$\neg MW$	-	-	-	-	-	-	-	X	-	X
$\neg CR\neg P$	-	-	X	X	-	-	-	-	X	-
$\neg S\neg CP$	-	-	-	-	X	-	-	-	-	-
$S\neg C\neg P$	X	-	X	-	-	-	X	-	-	X
$\neg S\neg CR$	-	-	-	X	X	-	-	-	X	-
$\neg SR\neg P$	-	-	-	X	-	-	-	-	X	-
$\neg S\neg W\neg C$	-	-	-	X	X	X	-	-	-	-
$\neg W\neg C\neg P$	X	-	X	X	-	X	X	-	-	-
$WR\neg P$	-	-	-	-	-	-	-	-	X	-
$SW\neg C\neg R$	-	-	-	-	-	-	-	-	-	X

Note: 'X' = minterm covered by PI, '-' = minterm not covered by PI.

Table D5: Complete list of solution models (outcome $\neg G$)

Solution models	INCL	COV
$sm_{\neg G,1} : \neg M\neg C \vee \neg S\neg CR \vee \neg W\neg C\neg P \Leftrightarrow \neg G$	0.912	0.452
$sm_{\neg G,2} : \neg M\neg C \vee \neg S\neg CR \vee S\neg C\neg P \Leftrightarrow \neg G$	0.913	0.444
$sm_{\neg G,3} : \neg M\neg C \vee \neg S\neg W\neg C \vee \neg W\neg C\neg P \vee WR\neg P \Leftrightarrow \neg G$	0.882	0.469
$sm_{\neg G,4} : \neg M\neg C \vee \neg SR\neg P \vee \neg S\neg W\neg C \vee \neg W\neg C\neg P \Leftrightarrow \neg G$	0.872	0.462
$sm_{\neg G,5} : \neg M\neg C \vee S\neg C\neg P \vee \neg S\neg W\neg C \vee WR\neg P \Leftrightarrow \neg G$	0.883	0.462
$sm_{\neg G,6} : \neg M\neg C \vee S\neg C\neg P \vee \neg SR\neg P \vee \neg S\neg W\neg C \Leftrightarrow \neg G$	0.872	0.483
$sm_{\neg G,7} : \neg M\neg C \vee \neg S\neg CP \vee \neg W\neg C\neg P \vee WR\neg P \Leftrightarrow \neg G$	0.886	0.487
$sm_{\neg G,8} : \neg M\neg C \vee \neg S\neg CP \vee \neg SR\neg P \vee \neg W\neg C\neg P \Leftrightarrow \neg G$	0.876	0.504
$sm_{\neg G,9} : \neg M\neg C \vee \neg S\neg CP \vee S\neg C\neg P \vee WR\neg P \Leftrightarrow \neg G$	0.887	0.472
$sm_{\neg G,10} : \neg M\neg C \vee \neg S\neg CP \vee S\neg C\neg P \vee \neg SR\neg P \Leftrightarrow \neg G$	0.877	0.497
$sm_{\neg G,11} : \neg M\neg C \vee \neg CR\neg P \vee \neg S\neg W\neg C \vee \neg W\neg C\neg P \Leftrightarrow \neg G$	0.907	0.449
$sm_{\neg G,12} : \neg M\neg C \vee \neg CR\neg P \vee S\neg C\neg P \vee \neg S\neg W\neg C \Leftrightarrow \neg G$	0.907	0.442
$sm_{\neg G,13} : \neg M\neg C \vee \neg CR\neg P \vee \neg S\neg CP \vee \neg W\neg C\neg P \Leftrightarrow \neg G$	0.910	0.467
$sm_{\neg G,14} : \neg M\neg C \vee \neg CR\neg P \vee \neg S\neg CP \vee S\neg C\neg P \Leftrightarrow \neg G$	0.912	0.455

Online Appendix D3: Results – robustness

As suggested by Skaaning (2011) and Schneider and Wagemann (2012: 284–95), the robustness of QCA results should be examined by altering case selection strategies and by changing calibration thresholds and inclusion and frequency cutoffs. Solution terms can be deemed robust if (i) different model specifications lead to sufficient conditions that are similar or in a subset relation with one another and if (ii) inclusion and coverage scores remain roughly the same (or vary in a predictable way) (Schneider and Wagemann 2012: 285–6). Overall, the parsimonious models for the positive outcome reported in the paper are robust to alterations in case selection, calibration and inclusion and frequency cutoffs. The negative models are also fairly stable, but somewhat less so (except for $\neg M\neg C$) than the positive ones.

Case selection

First, the robustness of the main solution models are examined by focusing only on governments formed after a national election, i.e. by excluding all observations of governments formed during an election term. Regarding government inclusion, a minimization procedure leads to a model with one single solution term: $SWCR$. This solution is a submodel of $sm_{G.1}$. The inclusion and coverage scores are 0.777 and 0.198, respectively. Moving to government exclusion, the minimization leads to eight solution models. The solution term $\neg M\neg C$ is – together with either $\neg W\neg C\neg P$ or $S\neg C\neg P$ – present in all of these models. The inclusion scores of the different models vary between 0.856 and 0.928, and the coverage scores between 0.437 and 0.510.

A second way to examine the effects of changing the case selection strategy is to exclude observations of borderline radical right and radical left parties. After excluding the Croatian HDZ, the Danish SF from 2007 onwards, the Dutch LPF, the Finnish PS in 1999, the Greek ANEL, the Lithuanian PTT and the Romanian PUNR, the solution models reported in the paper are reproduced, with roughly similar inclusion and coverage scores. A negation of the outcome leads to the solution model $\neg C\neg P \vee \neg CR$ – a submodel of both of the main models reported in the paper. The inclusion of this model is 0.915, and the coverage 0.526. A model excluding Latvian observations (inclusion cutoff set at 0.700 and 0.600) produces submodels (and supermodels) of the models given in the paper.

Third, I have followed a prospective (rather than retrospective) case selection strategy and included only observations of parties that already have, at some point in time after 1980, been included in (or supported) government (i.e., observations from before the first government entry/support are deleted). The main paths to government inclusion ($SWCP$, $SW\neg RP$) are reproduced, with coverage scores increasing somewhat, as expected. Regarding the negative outcome, supermodels of the main models are produced.

A fourth and final way to alter case selection is to include additional ‘irrelevant’ radical parties, i.e. radical parties excluded from the main analysis following the possibility principle (Goertz 2006). In the first step, I include four such parties: the Hungarian Jobbik (in 2010 and 2014), the German Left (90, 94, 98, 02, 05, 09, 13 and 17), the Slovenian Nationalist Party (92, 96, 00, 04 and 08) and the Dutch Socialist Party (94, 98, 02, 03, 06, 10 and

12). With the inclusion cutoff set at 0.700, the last (weak) path ($WCR\neg P$) is eliminated from the positive solution model. A supermodel ($MSWCP \vee SW\neg RP$) of the remaining paths is produced. The model inclusion score remain largely similar, and the coverage score declines somewhat, as expected. Regarding the negative outcome, (supermodels of) both of the main models are reproduced, with roughly similar inclusion and coverage scores. In the second step, I include seven additional parties: Alternative for Germany (in 2017), the Czech Communist Party of Bohemia and Moravia (91, 92, 96, 98, 02, 06, 10 and 13), the Communist Party of Greece (93, 96, 00, 04, 07, 09, 12[a-b] and 15), the Greek Golden Dawn (12[a-b] and 15), the French National Front (97[a-b], 12 and 17), the Sweden Democrats (10 and 14) and the Belgian Flemish Interest (91, 95, 99, 03, 07 and 10). With an inclusion cutoff set at 0.625, a submodel of models $sm_{G,1}$ and $sm_{G,2}$ is produced, with the model inclusion and coverage score declining, as expected. Regarding the negative outcome, (supermodels of) both of the main models are reproduced, with roughly similar inclusion and coverage scores.

Calibration

First, I recalibrate the outcome (G) by giving all supporter parties the values 0.45 and 0.55, respectively. Both recalibrations reproduce the original solution models for the positive outcome. The inclusion and coverage scores also remain more or less unchanged (around 0.750 and 0.300, respectively). For the negative outcome, the solution terms $\neg M\neg C$ and $\neg S\neg CR$ are reproduced and, hence, stable. Inclusion and coverage scores are, as in the original models, around 0.900 and 0.450, respectively.

Second, I adjust ($\pm 5\%$ iles) the crossover points for M , S , W , R and P . By including the recalibrated conditions individually, 20 (i.e., 10 for the positive outcome, 10 for the negative outcome) sets of alternative solution models is acquired. All of these solutions include models that reproduce – or are in a sub-/superset relation to – the main models reported in the paper. Again, the inclusion and coverage scores remain largely unchanged.

Inclusion and frequency cutoffs

To assess the effect of changing the inclusion and frequency thresholds, I proceed as follows. Regarding the positive outcome, I first increase the inclusion cutoff to 0.775 and, second, raise the frequency cutoff to 3 and 5, respectively. The increased inclusion cutoff produces two models, both of which are submodels of those reported in the paper ($SW\neg RP \vee SWCR$ and $SW\neg RP \vee SWCP$). Submodels ($W\neg RP \vee SWCR$ and $SWCP$) are produced also by raising the frequency cutoff to 3. By raising the frequency cutoff to 5, the conjunctions $SWCR$ and $SWCP$ are produced. The inclusion and coverage scores for the different sets of solution models vary in a predictable way, between 0.637 and 0.815 and 0.194 and 0.313, respectively.

Moving to the negative outcome, I change the inclusion cutoff to 0.800 and 0.900 and the frequency cutoff to 1 and 5. Here, a minimization with a frequency cutoff at 1 gives 32 solution models. Among these are a number of models that are supermodels of the ones presented in the paper. Setting the frequency cutoff at 5 produce 26 models, including the

ones reported in the paper. Inclusion and coverage scores are around 0.900 and 0.450 for all solution models. Changing the inclusion cutoff to 0.900 and 0.800 produce 36 and 4 models, respectively. None of these are perfect super- or subsets of the models reported in the paper. The path $\neg M-C$ is (or its superversion) is, however, reproduced in 37 of these. Raising the inclusion cutoff to 0.900 does not affect the inclusion and coverage of the solutions; the scores remain around 0.900 and 0.450. A lower cutoff at 0.800 causes a predictable decrease in inclusion (to around 0.850) and a corresponding increase (to around 0.600) in coverage.

Can model statistics be improved by adding exogenous factors?

Finally, I also examine whether adding exogenous factors leads to an improvement of model statistics. Here, I focus on party system characteristics (effective number of parliamentary parties; N) and parliamentary experience (consecutive years in parliament; E). The assumptions here are that radical parties tend to be included in coalition governments when the options are limited (i.e., when the effective number of parliamentary parties is low, see de Lange 2009; Olsen, Hough, and Koß 2010) or when they are fairly established political actors (i.e., when they have been represented in the national parliament during several electoral terms, see e.g. Warwick 1996). The factor N is hence a negative end-point concept, and the thresholds are set at 7.5 (τ_{ex}), 5.0 (τ_{cr}) and 2.5 (τ_{in}). E is a positive end-point concept, and thresholds are set at 4.0 (τ_{ex}), 8.0 (τ_{cr}) and 12.0 (τ_{in}). Including N in the minimization procedure leads to a reproduction of both $sm_{G.1}$ and $sm_{G.2}$ and, in addition, to 10 additional models. The inclusion and coverage scores of these models range between 0.696 and 0.772 and 0.293 and 0.369, respectively. Generally, models with a considerably higher coverage (around 0.350) than $sm_{G.1}$ and $sm_{G.2}$ have low inclusion scores (< 0.750). An inclusion of E in the minimization leads to eight models, two of which are supermodels of $sm_{G.1}$ and one of $sm_{G.2}$. The inclusion and coverage scores remain largely unchanged, varying between 0.696 and 0.772 and 0.263 and 0.295, respectively. The conclusions from including additional exogenous factors are, hence, rather straightforward: including N or E in the minimization process reproduce (supermodels of) $sm_{G.1}$ and $sm_{G.2}$, and neither of the factors are able to significantly improve model statistics. The same holds for the negative outcome. The inclusion of N does not improve model fit. Several of the resulting solution models are able to reproduce the conjunctions $\neg M-C$ and $\neg W-C-P$ (and $S-C-P$), but none reproduce $\neg S-CR$. The inclusion of E leads, on average, to somewhat lower inclusion scores, and to somewhat higher coverage scores. The solution models produced include supermodels of both $sm_{-G.1}$ and $sm_{-G.2}$.

References

- de Lange SL** (2009) From the Periphery to Power: Explanations for the Government Participation of Niche Parties in West European Parliamentary Democracies. Paper presented at ECPR Joint Sessions, Lisbon, Portugal, 14–19 April.
- Goertz G** (2006) *Social Science Concepts: A User's guide*. Princeton: Princeton University Press.
- Olsen J, Hough D and Koß M** (2010) Conclusion: Left Parties in National Govern-

ments. In Olsen J, Koß M and Hough D (eds), *Left Parties in National Governments*. Basingstoke, UK: Palgrave Macmillan, pp. 173–85.

Schneider CQ and Wagemann C (2012) *Set-theoretic Methods for the Social Sciences: A Guide to Qualitative Comparative Analysis*. Cambridge: Cambridge University Press.

Skaaning S-E (2011) Assessing the Robustness of Crisp-set and Fuzzy-set QCA Results. *Sociological Methods and Research* **40**(2), 391–408.

Warwick PV (1996) Coalition Government Membership in West European Parliamentary Democracies. *British Journal of Political Science* **26**(4), 471–99.