CANDIDATE CHARACTERISTICS, PARTY POSITIONS AND VOTER HEURISTICS

ANALYZING THE POLITICAL SUPPLY- AND DEMAND-SIDE OF POLITICS

Von der Carl von Ossietzky Universität Oldenburg – Fakultät I Bildungs- und Sozialwissenschaften – zur Erlangung des Grades eines

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Dedicated to Cea A. Wacker
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ABSTRACT

This thesis consists of six articles which analyze the relationship between voters, candidates and parties in modern parliamentary systems. For the purpose of this study, it is argued that candidates and parties represent the supply-side of politics, while voters constitute the demand-side. Based on this dichotomy, the thesis consists of two parts in which the preferences of these actors are analyzed. The first three articles analyze the preferences of voters for candidates in open-list PR systems. In particular, these articles focus on the question of how information shortcuts influence the electoral success of candidates. Three shortcuts are analyzed: ballot position effects, residence effects and gender effects. The second part of the thesis analyzes the positions of candidates and parties in Germany and the Czech Republic. Taking advantage of recent developments in the field of political methodology, it is analyzed where parties, legislators and candidates are located in a low-dimensional policy space. In this regard, the thesis discusses the interpretation of the terms 'left' and 'right' by political actors and highlights how the interpretation of these terms depends on the context in which they are used.

ZUSAMMENFASSUNG

Die Dissertation umfasst sechs Artikel, welche das Verhältnis von Wählern, Kandidaten und Parteien analysieren. In der Arbeit werden Kandidaten und Parteien der "Angebotsseite" der Politik zugeordnet und Wähler der "Nachfrageseite". Basierend auf dieser Unterscheidung lassen sich zwei Teile der Dissertation ausmachen, in welchen die Präferenzen der jeweiligen Akteure analysiert werden. Die ersten drei Artikel befassen sich mit der Analyse von Wählerpräferenzen für Kandidaten in offenen Wahllistensystemen. Insbesondere wird der Frage nachgegangen wie Heuristiken den Wahlerfolg von Kandidaten beeinflussen. Drei Heuristiken werden analysiert: Stimmzettelpositionseffekte, Wohnortseffekte und Geschlechtereffekte. Der zweite Teil der Arbeit analysiert die Position von Kandidaten und Parteien in Deutschland und Tschechien. Auf Grundlage der Anwendung innovativer methodologischer Ansätze wird untersucht, wie sich Parteien, Abgeordnete und Kandidaten im politischen Raum positionieren lassen. Hierbei wird sich insbesondere auf die Interpretation der Begriffe 'links' und 'rechts' konzentriert. Die Arbeit zeigt auf, dass diese Positionen stark vom politischen Kontext abhängen.

OVERVIEW OF MANUSCRIPTS

This dissertation consists of six manuscripts which have either been already published in peer-reviewed journals, or have been presented at international political science conferences. The following list provides an overview of the status of each manuscript at the time of submission of this thesis:

1. Marcinkiewicz, Kamil and Michael Jankowski. 2014. "When there is no easy way out: Electoral Law Reform and Ballot Position Effects in the 2011 Hamburg State Elections", *German Politics* 23 (1–2), 107–120.

2. Jankowski, Michael and Kamil Marcinkiewicz. 2016. "Are populist parties fostering women's political representation in Poland? A comment on Kostadinova and Mikulska", *Party Politics*, published online before print, doi: 10.1177/1354068816650995.

3. Jankowski, Michael. 2016. "Voting for Locals: Voters' Information Processing Strategies in Open-List PR Systems", *Electoral Studies* 43 (3), 72-84.

4. Jankowski, Michael, Sebastian Schneider and Markus Tepe. 2016. "The struggle over ideology: Analyzing left-right definitions of parliamentary candidates using structural topic models", *Working Paper*.

5. Jankowski, Michael, Sebastian Schneider and Markus Tepe. 2016. "Ideological Alternative? Analyzing Alternative für Deutschland candidates' ideal points via black box scaling", *Party Politics*, published online before print, doi: 10.1177/1354068815625230.

6. Jankowski, Michael and Kamil Marcinkiewicz. 2016. "Varieties of Legislative Voting Patterns: The Impact of Majority, Minority and Caretaker Governments", Under Review at *Government & Opposition*.

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- Richard R. Lau, the organizing committee and the participants of the 2nd Leuven-Montreal Winter School on Elections and Voting Behavior discussed the article "Voting for Locals" and provided helpful feedback.
- Participants from the colloquium of Prof. Dr. Markus Tepe discussed a draft of the paper "Are populist parties fostering women's political representation in Poland?".
- Simon Hug and Bjørn Høyland discussed the paper "Varieties of Legislative Voting Patterns" at the European Political Science Association Annual Meeting 2015 in Vienna. Moreover, Sona N. Golder provided very helpful comments on this manuscript.
- Various comments were made by anonymous reviewers at *Electoral Studies*, *Party Politics* and *German Politics* which greatly improved the quality of the papers.

Finally, this thesis would not have been possibly without my family and friends. Most importantly, I am indebted to my wife and parents for all their support during this time. This thesis is dedicated to my daughter Cea Amelie.

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Part I

ZUSAMMENFASSUNG

1

ZUSAMMENFASSUNG

Michael Jankowski

ABSTRACT

Das Kapitel liefert einen Überblick über die sechs in dieser Dissertation enthaltenen Artikel. Hierbei wird aufgezeigt, welche Fragestellungen die Dissertation adressiert und welcher Beitrag zur bestehenden Forschung geleistet wird. Der erste Abschnitt des Kapitels beschreibt die wichtigsten Akteursgruppen, welche in der Dissertation analysiert werden, und in welchem Verhältnis diese zueinander stehen. Anschließend wird die Kandidatenauswahl in offenen Wahllistensystemen als erster Teil der Dissertation beschrieben. In diesem Kontext wird insbesondere die Wirkung von Heuristiken bei der Kandidatenauswahl diskutiert. Hiernach wird der zweite Teil der Dissertation vorgestellt. In diesem Abschnitt steht die Positionsbestimmung von Kandidaten und Abgeordneten im Mittelpunkt. Das Kapitel schließt mit einem Ausblick auf zukünftige Forschungsvorhaben.

1.1 MOTIVATION UND FRAGESTELLUNG

Die Repräsentation politischer Interessen von Bürgerinnen und Bürgern durch gewählte Politiker ist eines der zentralen Merkmale moderner Demokratien. Weßels (2007, 833) fasst hierzu zusammen, dass Demokratie zwar "the idea of popular rule or effective fate control of the people" darstellt, das Prinzip der Repräsentation hingegen "the democratic idea of giving people a voice in large states" erst ermöglicht. Ganz allgemein kann unter Repräsentation verstanden werden, dass politische Entscheidungen nicht von allen Bürgerinnen und Bürgern getroffen werden, sondern von demokratisch gewählten Vertretern, die in ihren Entscheidungen frei und somit zumindest nicht direkt an die Präferenzen der Bevölkerung gebunden sind (Fraenkel 2011). Daraus folgt, dass durch Repräsentation der "Unterschied von Regierenden und Regierten" hergestellt wird und "dem Volk zur unmittelbaren Entscheidung im Prinzip nur die Wahl zwischen Personen" zukommt (von Aleman und Nohlen 2010, 920). Wahlen sind somit ein zentrales Element repräsentativer Demokratien. Sie stellen das wichtigste Mittel politischer Mitbestimmung für die Bevölkerung dar indem sie darüber entscheiden, welche Personen als Repräsentanten agieren können und welche nicht (Schmitt 2014, 4).

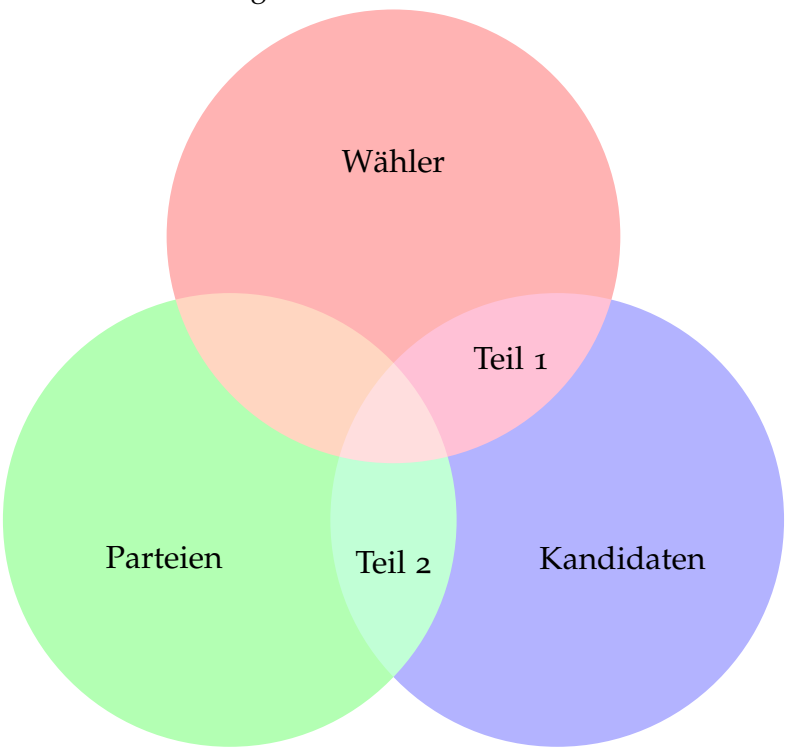
Wahlen fungieren somit als direktes Verbindungsstück zwischen Bürgerinnen und Bürgern und Repräsentanten. Jedoch erst die Tatsache, dass Politiker sich regelmäßig zur Wiederwahl stellen müssen, ermöglicht es Wählern, Politiker für ihre Handlungen verantwortlich zu machen (Mayhew 1974). Der Unterschied zwischen Regierenden und Regierten lässt sich im Kontext von Wahlen daher auch analog zu einem Markt verstehen, in dem Wähler politische Inhalte nachfragen und Politiker bestimmte Inhalte anbieten (Downs 1957; Behnke 2009, 498). Die Analyse dieser zwei Gruppen, bezeichnet als die 'Angebots'- und 'Nachfrageseite' der Politik, steht im Zentrum dieser Arbeit.

Während die Nachfrageseite durch die Wähler konstituiert wird, lassen sich auf der Angebotsseite maßgeblich zwei entscheidende, eng miteinander verbundene Akteure ausmachen: Kandidaten und Parteien. Hierzu lässt sich zunächst anmerken, dass Wahlen eigentlich in erster Linie Abstimmungen über Kandidaten sind. Dies zeigt sich daran, dass gewählte Abgeordnete ein freies Mandat haben und in ihren Ent-

scheidungen nicht an die Weisung von Anderen gebunden sind (Grundgesetz 2014, Art. 38, Abs. 1 Satz 2). Die Realität sieht jedoch anders aus und die Rolle von Parteien für Wahlen darf nicht unterschätzt werden. In parlamentarischen Systemen kommt Parteien nahezu die alleinige Aufmerksamkeit im öffentliche Diskurs zu und durch die Regelungen im Grundgesetz (Grundgesetz 2014, Art. 21) bzw. im Parteiengesetz (Parteiengesetz 2015, Art. 1) werden Parteien als die zentralen Akteure der Politik normiert. Kandidaten spielen in aller Regel nur insofern eine Rolle, dass sie als Vertreter ihrer Partei angesehen werden. Unabhängige Bewerber sind, abseits von Ausnahmen auf lokaler Ebene (Morlock, Poguntke und Walther 2012), bei Wahlen in der Regel chancenlos (Nestler 2014). Damit ergibt sich nicht nur die Frage, wie das Verhältnis von Wählern und Kandidaten ist, sondern ebenso wie diese Verbindung durch die Rolle von Parteien beeinflusst wird. Die vorliegende Arbeit beschäftigt sich mit dem Verhältnis dieser drei Akteursgruppen.

In Abbildung 1.1 wird der Inhalt der Arbeit zusammengefasst. Die Arbeit adressiert beim Zusammenspiel der drei Akteursgruppen insbesondere das Verhältnis zwischen Wählern und Kandidaten einerseits (Teil 1) und Kandidaten und Parteien andererseits (Teil 2). Die Verbindung zwischen Parteien und Wählern ist nicht direkter Bestandteil der Arbeit, da die klassischen Theorien der empirischen Wahlforschung sich bereits hierauf konzentrieren (bspw. Falter und Schoen 2014). Vielmehr konzentriert sich die Arbeit im ersten Teil darauf ein vertieftes Verständnis darüber zu entwickeln, welche Faktoren die Kandidatenwahl im Kontext von offenen Wahllisten mit Verhältniswahl beeinflussen. Dieses Wahlsystem führt eine neue Ebene in den Entscheidungsprozess von Wählern ein, da die Präferenz für eine Partei nicht ausreichend ist um eine Wahlentscheidung zu treffen. Der zweite Teil fokussiert sich dann auf das Verhältnis von Kandidaten und Parteien und fragt danach, welche Faktoren die Positionierung von Kandidaten und Parteien beeinflussen und wie diese Positionen gemessen werden können.

Abbildung 1.1: Übersicht über die Arbeit



1.1.1 *Kandidatenauswahl in offenen Wahllistensystemen*

Die Fokussierung auf das Zusammenspiel von Wählern und Kandidaten ist nicht nur aus wissenschaftlicher, sondern auch aus normativer Perspektive interessant. Sowohl die öffentliche als auch die wissenschaftliche Diskussion stellt zunehmend fest, dass sich die repräsentative Demokratie in einer Krise befindet. Unter dem Begriff der "Postdemokratie" wird eine ganze Reihe von Phänomenen beschrieben, welche die zunehmende Entfremdung von Politikern und Wählern beschreiben sollen (Crouch 2002; Jörke 2005). Während in der Wissenschaft dieses Phänomen in all seinen Facetten analysiert und diskutiert wird (bspw. Eberl und Salomon (2013)), so gibt es insbesondere in der Zivilgesellschaft eine starke Forderung nach (mehr) direkten Beteiligungsformen, um der attestierten Entfremdung von Politik und Elektorat entgegenzuwirken. Dies schlägt sich zum einen in der vermehrten Forderung nach unmittelbar direktdemokratischen Elementen wie Volksabstimmungen nieder (Leininger 2016), zum anderen aber auch in der Reform bestehender Mitbestimmungsmöglichkeiten, wie etwa der

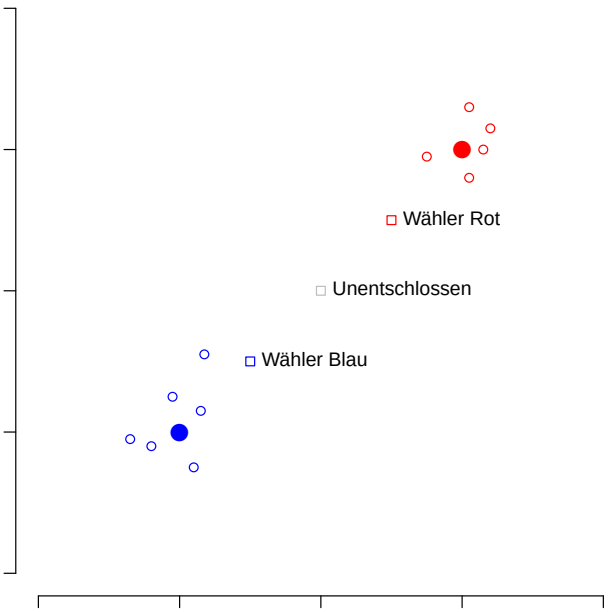
Anpassung des Wahlsystems (Horst 2011; Jankowski et al. 2013; Schäfer und Schoen 2013). In Hamburg und Bremen wurden beispielsweise die Wahlsysteme auf Druck des Vereins "Mehr Demokratie e.V." reformiert (David 2010). Seitdem können Wähler nicht mehr nur mit einer Stimme eine Parteiliste wählen, stattdessen verfügen sie nun über mehrere Stimmen, die nicht nur an eine Partei vergeben werden müssen, sondern auch an einen oder mehrere Kandidaten dieser Parteien. Das erklärte Ziel dieser Reform ist es, den Einfluss der Parteien zu verringern und den Mitbestimmungsgrad der Wähler zu erhöhen (Horst 2011).

Die Arbeit greift diese Diskussion über offene Wahllistensysteme auf und verbindet sie mit Theorien der Entscheidungsfindung von Wählern. Insbesondere wird der Fokus darauf gelegt, welche Faktoren den Wahlerfolg von Kandidatinnen und Kandidaten in offenen Wahllistensystemen mit Verhältniswahl (engl.: 'open-list PR') beeinflussen. Diese Wahlsysteme sind deshalb so interessant, weil Wähler nicht nur eine klare Parteipräferenz für ihre Wahlentscheidung benötigen. Sie müssen sich zusätzlich auch für mindestens einen Kandidaten entscheiden, dem sie ihre Stimme geben wollen. Offene Wahllistensysteme führen somit eine weitere Ebene für die Analyse von Wahlentscheidungen ein. Während in geschlossenen Wahllistensystemen maßgeblich die Analyse der Parteiwahl entscheidend ist, so kann in offenen Wahllistensystemen neben der Parteiwahl auch die Kandidatenwahl analysiert werden.

Es gibt zwei unterschiedliche Ansätze zu erklären, anhand welcher Faktoren Wähler sich für bestimmte Kandidaten entscheiden. Zum einen lässt sich anhand rationaler Wählermotive annehmen, dass Wähler Kandidaten aufgrund politischer Präferenzen auswählen. Zum anderen können Wähler sich bei der Kandidatenauswahl an unpolitischen Faktoren, wie etwa dem Geschlecht oder Alter von Kandidaten, orientieren. Der ersten Erklärung folgend führen offene Wahllistensysteme dazu, dass Wähler die innerparteiliche Heterogenität von Politikpositionen mit in die Wahlentscheidung einbeziehen (siehe bspw. Blumenau et al. 2016). Dem Standardmodell räumlichen Wählens folgend, können Wähler in offenen Wahllistensystemen somit nicht nur für die Partei stimmen, die ihrem eigenen Idealpunkt am nächsten ist, sondern zusätzlich für den Kandidaten, der ihnen am politisch nächsten steht. Somit erlauben offene Wahllistensysteme, zumindest theoretisch, eine bessere Kandidatenauswahl. Abbildung 1.2 verdeutlicht diesen Zusammenhang anhand

einer hypothetischen Konstellation von Wählern, zwei Parteien und deren Kandidaten in einem zweidimensionalen politischen Raum. In Abbildung 1.2 wird die Position der Partei durch die großen Punkte dargestellt. Für den Fall eines geschlossenen Wahllistensystems würde sich ein Wähler (dargestellt durch Quadrate) für die rote Partei und ein Wähler für die blaue Partei entscheiden. Der Wähler in der Mitte wäre jedoch indifferent, da er sich genau in der Mitte von beiden Parteien befindet. Offene Wahllistensysteme machen dieses Bild nun komplexer. Hier lässt sich die Kandidatenwahl über die Distanz zwischen Wählern und den einzelnen Kandidaten (kleine Kreise) erklären. In diesem Fall wäre der zuvor indifferente Wähler nicht mehr unentschlossen, sondern unter rationalen Gesichtspunkten näher am Idealpunkt eines Kandidaten der blauen Partei. Unter diesen Gesichtspunkten erlauben offene Wahllistensysteme somit eine gezieltere Stimmenabgabe, die im Idealfall besser die Präferenzen der Wählerschaft berücksichtigen kann.

Abbildung 1.2: Position von Parteien (große Punkte), Kandidaten (kleine Kreise) und Wählern (Quadrate)



Das eben beschriebene Modell räumlichen Wählens basiert allerdings auf sehr weitreichenden Annahmen. De facto, setzt er die vollständige Informiertheit der Wähler voraus. Diese Annahme steht im starken Kontrast zu empirischen Befunden über die politische Informiertheit

von Wählern (Bartels 1996; Lau und Redlawsk 2001, 2006). Achen und Bartels (2016) kontrastieren dieses Auseinanderdriften theoretischer Annahmen über Wahlentscheidungen und der empirischen Evidenz über die Informiertheit der Wähler wie folgt:

> The folk theory of democracy celebrates the wisdom of popular judgments by informed and engaged citizens. The reality is quite different. Human beings are busy with their lives. Most have school or a job consuming many hours of the day. They also have meals to prepare, homes to clean, and bills to pay. They may have children to raise or elderly parents to care for. They may also be coping with unemployment, business reverses, illness, addictions, divorce, or other personal and family troubles. For most, leisure time is at a premium. Sorting out which presidential candidate has the right foreign policy toward Asia is not a high priority for them. Without shrinking more immediate and more important obligations, people cannot engage in much well informed, thoughtful political deliberation, nor should they. (Achen und Bartels 2016, 9)

Es gilt herauszustellen, dass sich das Zitat von Achen und Bartels auf die Informiertheit und das politische Interesse von Wählern im Kontext von US-Präsidentschaftswahlen bezieht. Wenn bereits in diesem Kontext maximaler Salienz eine starke Uninformiertheit der Wähler angenommen wird, anhand welcher Kriterien treffen Wähler dann ihre Entscheidungen in weniger salienten Wahlen?

Die Antwort hierauf kann letztlich nur lauten, dass räumliche Modelle der Parteien- und Kandidatenwahl einen sehr begrenzten Erklärungsgehalt haben (Achen und Bartels 2016). Im Gegensatz dazu lässt sich feststellen, dass Entscheidungen von Wählern durch kognitive Heuristiken (Kahnemann, Slovic und Tversky 1982) bzw. 'information shortcuts' getroffen werden. Es besteht eine Debatte darüber inwieweit Heuristiken eine aus normativer Perspektive sinnvolle Hilfestellung für Wähler sind (bspw. Bartels 1996; Lau und Redlawsk 2001, 2006; Popkin 1991, 1993; Sniderman, Brody und Tetlock 1991). So wird von manchen argumentiert, Heuristiken würden Wählern ermöglichen Entscheidungen zu treffen, die identisch mit den Entscheidungen wären, die Wähler im Zustand völliger Informiertheit getroffen hätten (Lupia und McCubbins 1998). So schreibt Lupia (1994) bspw., dass Wähler auf Grundlage

von Heuristiken sich so verhalten "[as] if they had taken the time and effort necessary to acquire encyclopedic information" (Lupia 1994, 72). Dem stehen Analysen gegenüber, die anmerken, dass Heuristiken nicht zwangsweise eine Abkürzung zu 'enzyklopädischem' Wissen darstellen, sondern durchaus die Entscheidungen von Wählern verfälschen können: "heuristics sometimes introduce serious bias, along with cognitive efficiency, into decision making" (Lau und Redlawsk 2001, 230). Das heißt, die getroffene Wahlentscheidung entspricht nicht der Wahlentscheidung die Wähler getroffen hätten, wenn sie mehr bzw. vollständige Informationen besessen hätten (ausführlicher hierzu auch Lau und Redlawsk 2006).

Zwei Schlussfolgerungen lassen sich hieraus ableiten. Zunächst kann festgestellt werden, dass nahezu sämtliche Wähler auf Heuristiken bei der Wahlentscheidung zurückgreifen (Lau und Redlawsk 2006, 235). Hieraus folgt zum Zweiten: die Qualität der getroffenen Entscheidung hängt maßgeblich von den verwendeten Informationen ab. Kam (2007, 344) merkt hierzu entsprechend an: "some cues, however, are more democratically troublesome than others". Sie zeigt dies am Beispiel der Ethnie von Kandidaten auf, welche aus normativer Perspektive keine Rolle in der Wahlentscheidungen spielen sollten. Ähnliches gilt für das Geschlecht. Gleichzeitig können andere persönliche Charakteristika durchaus als Kompetenzindikator genutzt werden. Schneider und Tepe (2011) zeigen dies für den Doktortitel von Kandidaten bei Bundestagswahlen. Basierend auf der Feststellung, dass Heuristiken ein entscheidender Faktor der Kandidatenevaluation darstellen, gleichzeitig jedoch auch normative Probleme mit sich bringen können, analysiert die Arbeit den Einfluss drei unterschiedlicher Heuristiken die bei der Kandidatenwahl eine Rolle spielen können: Stimmzetteleffekte, Wohnorteffekte und Geschlechtereffekte.

Die Auswahl dieser drei Heuristiken ergibt sich aus ihrer normativen Gewichtung. Positionseffekte sind letztlich als neutral zu betrachten, da sie implizieren, dass Wählern den Vorschlägen von Parteien vertrauen (Marcinkiewicz 2014). Geschlechtereffekte hingegen weisen auf eine potentielle verzerrende Wahlentscheidung hin, da das Geschlecht kaum als sinnvolles Kriterium der Kandidatenevaluation gelten kann (bspw. Kelley und McAllister 1984). Wohnorteffekte lassen sich als Nachfrage nach geographischer Repräsentation verstehen und sind somit ein ver-

gleichsweise politischer Faktor der Kandidatenauswahl (Shugart, Valdini und Suominen 2005; Tavits 2010). Die Analysen basieren auf Daten von Wahlen zur Hamburgischen Bürgerschaft 2011 und 2015 sowie den Wahlen zum polnischen Parlament (Sejm) in 2001, 2005, 2007 und 2011. Die konkreten Inhalte der Artikel werden im Folgenden näher beschrieben.

Der Artikel 'When There's No Easy Way Out: Electoral Law Reform and Ballot Position Effects in the 2011 Hamburg State Elections' (Marcinkiewicz und Jankowski 2014) analysiert die Existenz von Stimmzettelpositionseffekten im Kontext der Bürgerschaftswahlen von 2011 in Hamburg. Es greift die Diskussion um die Wahlrechtsreform in Hamburg auf, bei welcher von einem geschlossenen Wahllistensystem zu einem offenen Wahllistensystem mit Verhältniswahl gewechselt wurde. Die Reform wurde maßgeblich normativ begründet und fußt auf der Annahme einer gezielteren Kandidatenauswahl durch Wähler. Der Artikel zeigt auf, dass eine solche Kandidatenauswahl empirisch nicht nachgewiesen werden kann. Stattdessen legen die Daten nahe, dass Wähler sich an simplen Heuristiken wie der Stimmzettelposition konzentrieren, um ihre Wahlentscheidung zu treffen.

Der zweite Artikel 'Are populist parties fostering women's political representation in Poland? A comment on Kostadinova and Mikulska' (Jankowski und Marcinkiewicz 2016a) konzentriert sich mit Blick auf den Fall des polnischen Wahlsystems auf die Frage, welchen Effekt das Geschlecht auf Nominierungs- und Wahlchancen von Kandidaten hat. Das Geschlecht wird hierbei als eine normativ problematische Heuristik konzeptualisiert. Der Artikel nutzt eine bestehende Analyse als Aufhänger um aufzuzeigen, dass das Geschlecht nur einen geringen Einfluss auf die Auswahl von Kandidaten in offenen Wahllistensystem hat. In diesem Kontext diskutiert der Artikel auch die methodische Herausforderung bei der Analyse dieser Effekte. Weiterhin werden Unterschiede hinsichtlich der ideologischen Position von Parteien und deren Einfluss auf die Geschlechtereffekte diskutiert.

Dieser Teil der Dissertation wird abgeschlossen durch den Artikel 'Voting for locals: Voter's Information Strategies in Open-List PR Systems' (Jankowski 2016). Der Artikel geht inhaltlich insbesondere der Frage nach, welche Rolle der Wohnort eines Kandidaten für den Wahlerfolg spielt. Er kommt zu dem Ergebnis, dass Wähler sich stark an dem

Wohnort eines Kandidaten orientieren und eine ausgeprägte Präferenz für 'lokale' Kandidaten haben. Hierfür wird sich erneut auf Daten aus dem Kontext der Hamburgischen Bürgerschaftswahlen bezogen. Dieser Artikel stellt eine Erweiterung der beiden vorherigen Artikel dar, indem den Einfluss von Wohnorteffekten auch mit der Effektstärke von Stimmzettelpositionen und dem Geschlecht verglichen wird.

1.1.2 *Positionsbestimmung von Kandidaten und Parteien*

Der vorherige Teil der Arbeit zeigt auf, dass sich Wähler maßgeblich in ihrer Entscheidung für Kandidaten von simplen Heuristiken leiten lassen. Elementar für die Frage der politischen Repräsentation ist allerdings auch die Untersuchung, in welchem Verhältnis Kandidaten und Parteien zueinander stehen. Hiermit befasst sich der zweite Teil der Arbeit.

Dieser Abschnitt geht von der Annahme aus, dass sich räumliche Modelle der Politik zwar nicht für die Kandidatenauswahl bei Wahlen eignen, die Positionierung von Abgeordneten und Parteien in einem mehrdimensionalen Raum jedoch ein sinnvolles Unterfangen ist. Die grundsätzliche Annahme des räumlichen Modells der Politik besteht darin, dass sich die Präferenzen der politischen Akteure in einem mehrdimensionalen Raum anordnen lassen. Das räumliche Modell zählt zu den ältesten Theorien in der Politikwissenschaft und geht insbesondere auf die Arbeiten von Hotelling (1929), Downs (1957) und Black (1958) zurück. Die Modelle wurden in ihrer Komplexität stets weiterentwickelt (bspw. Ordeshook 1976; Riker und Ordeshook 1968) und fungieren als wichtiges formales Modell zur Beschreibung des Verhaltens von politischen Akteuren (bspw. Poole und Rosenthal 1997; eine Übersicht liefert Linhart 2014).

Grundannahme des räumlichen Models ist, dass politische Akteure über 'Idealpunkte' verfügen. Idealpunkte sind definiert als die Position der Akteure in einem politischen Raum der aus einer beliebigen Anzahl von Dimensionen bestehen kann. Jeder politische Akteur hat eine Position auf diesen Dimensionen aus denen sich sein Idealpunkt ergibt. Eine der zentrale Fragen räumlicher Modelle beschäftigt sich damit wie viele Dimensionen notwendig sind, um die unterschiedlichen Präferen-

zen von Akteuren abbilden zu können. Im einfachen räumlichen Modell existiert nur eine Dimension, welche in der Regel als 'links-rechts'-Dimension beschrieben wird. Dient die eindimensionale Betrachtung von Politik aus formal-theoretischer Perspektive häufig der Vereinfachung von Modellen (Linhart 2014), so kommen empirische Studien zur Dimensionalität des politischen Raums zu dem Ergebnis, dass nur sehr wenige Dimensionen, in der Regel eine oder zwei, zur Beschreibung von Idealpunkten hinreichend sind (Poole und Rosenthal 1997). Dieser Befund mag auf den ersten Blick überraschen: Politik ist doch gerade geprägt durch eine Vielzahl von Themen und Konflikten. Aber das räumliche Modell bezeichnet mit "Dimensionen" nicht nur einzelne Themen, sondern identifiziert latente Dimensionen, auf welche sich die Präferenzen zu unterschiedlichsten Themen zurückführen lassen. Armstrong et al. (2014, 8) fassen dies wie folgt zusammen: "While legislators and citizens may have preferences across a dizzying array of policy issues – abortion, tax rates, gun control, foreign policy – these attitudes appear to be organized by positions along a small number of latent dimensions".

Während die theoretische Entwicklung räumlicher Modelle schon frühzeitig in der Politikwissenschaft begann, ist es erst durch das Aufkommen moderner Computer möglich, die theoretischen Annahmen der Modelle durch die Berechnung von Idealpunkten zu ergänzen (zusammenfassend hierzu Poole 2005, Kap. 1). Die Pionierarbeit leisteten hier Poole und Rosenthal (Poole 2005; Poole und Rosenthal 1997), welche basierend auf namentlichen Abstimmungen im US Kongress Idealpunkte von Abgeordneten berechnen. Sie kommen zu dem Ergebnis, dass für einen Großteil der Geschichte des US Kongress ein eindimensionales Modell hinreichend ist um die Positionen von Abgeordneten zu beschreiben. Darüber hinaus zeigen sie auf, dass die berechneten Idealpunkte in der Tat akkurate Beschreibungen der Position von Abgeordneten sind.

Der vorliegende Abschnitt der Arbeit greift das räumliche Modell der Politik auf und testet seine Übertragbarkeit auf den europäischen Kontext (Bakker et al. 2014). Insbesondere wird der Frage nachgegangen, welche Faktoren die Links-Rechts-Positionierung von Parteien und Kandidaten beeinflussen. Der Fokus auf die Links-Rechts-Positionierung erfolgt, da diese einen wichtigen Orientierungspunkt zur Einschätzung

der politischen Inhalte eines Politikers liefert (Benoit und Laver 2006). Hierfür werden eine Reihe innovativer methodologischer Verfahren genutzt, um die Position von politischen Akteuren zu berechnen. Darüber hinaus wird analysiert welche persönlichen und institutionellen Faktoren die Position von politischen Akteuren beeinflussen. Im Folgenden wird der Inhalt der drei Artikel näher beschrieben.

Der erste Artikel, 'The struggle over ideology: Analyzing left-right definitions of parliamentary candidates using structural topic models' (Jankowski, Schneider und Tepe 2016b), befasst sich mit der Analyse der Bedeutung der Begriffe 'links' und 'rechts' unter den Kandidaten der Bundestagswahl 2013. Es werden die Antworten zu offenen Surveyfragen genutzt, um anhand einer topic model Analyse (Lucas et al. 2015; Roberts et al. 2014) aufzuzeigen, dass die Bedeutung dieser Begriffe nicht immer eindeutig ist und durch parteipolitische Faktoren beeinflusst wird. Die verschiedenen Themen, die mit den Begriffen assoziiert werden, können mit einem zweidimensionalen Politikbegriff verglichen werden. Weiterhin wird aufgezeigt, dass die Interpretation der Begriffe nicht nur von der Parteizugehörigkeit, sondern auch von der innerparteilichen Position beeinflusst wird.

Der zweite Artikel 'Ideological alternative? Analyzing Alternative für Deutschland candidates' ideal points via black box scaling' (Jankowski, Schneider und Tepe 2016a) befasst sich ebenfalls mit den Kandidaten bei der Bundestagswahl 2013. Dieses Mal werden Idealpunkte der Kandidaten berechnet, basierend auf den Antworten zu verschiedenen Issue-Scales unter Anwendung des mehrdimensionalen Skalierungsverfahrens 'black box scaling' (Poole 1998; Poole et al. 2016). Die Ergebnisse zeigen, dass sich Kandidaten durchaus in einem zweidimensionalen Raum anordnen lassen, welcher sowohl ökonomische wie auch gesellschaftliche Konfliktlinien widerspiegelt. Der Artikel analysiert weiterhin die Determinanten der Positionierung und kommt zu dem Schluss, dass soziodemographische als auch Ost-West-Unterschiede eine Rolle spielen. Vor diesem Hintergrund werden insbesondere die Ergebnisse bezüglich der Kandidaten der AfD diskutiert und die spätere Entwicklung der AfD erklärt.

Den Abschluss dieses Teils und der Dissertation insgesamt bildet der Artikel 'Varieties of Legislative Voting Patterns: The Impact of Majority, Minority and Caretaker Governments' (Jankowski und Marcinkiewicz

2016b). Er widmet sich der Skalierung von Abgeordneten im Tschechischen Parlament gewidmet. Als Datengrundlage dienen namentliche Abstimmungen. Die Forschungsfrage lautet, welchen Einfluss die Zugehörigkeit zu einem Regierungstyp hat. Es wird aufgezeigt, dass Abgeordnete bzw. Parteien nur selten anhand der ideologischen Position abstimmen. Vielmehr wird demonstriert, dass der Regierungs-Oppositions-Konflikt eine bessere Erklärungskraft für das parlamentarische Verhalten liefert.

1.2 AUSBLICK

Die in der Arbeit präsentierten Artikel analysieren das Verhältnis von Wählern, Kandidaten und Parteien. Der Fokus liegt dabei insbesondere auf den Kandidaten. Zum einen wird analysiert, welche Faktoren den Wahlerfolg von Kandidaten in offenen Wahllistensystemen bestimmen. Zum anderen wird analysiert, wie sich Kandidaten, Abgeordnete und Parteien inhaltlich voneinander unterscheiden.

Im Rahmen zukünftiger Forschung können die Ergebnisse dieser Arbeit weiter spezifiziert und miteinander in Verbindung gesetzt werden. Die Ergebnisse zur Wirkung von Heuristiken legen beispielsweise nahe, dass in zukünftigen Studien zur Kandidatenwahl vermehrt auf die psychologischen und kontextuellen Faktoren geachtet werden sollte, die einer Wahlentscheidung zu Grunde liegen können. Dies spricht aus theoretischer Perspektive für eine stärkere Verzahnung von Theorien der Wahlforschung und Ansätzen aus dem Bereich der politischen Psychologie. Insgesamt kann in einem solchen Modell der Wahlentscheidung vermehrt auf die Mikroebene abgezielt werden.

Aus empirischer Perspektive kann festgestellt werden, dass sich diese Arbeit maßgeblich auf Heuristiken konzentriert hat, die in Wahlen auf dem Stimmzettel zu finden sind. Es wurde aufgezeigt, dass diese Informationen einen starken Einfluss auf den Wahlerfolg haben. Aus praktischer Perspektive ist daher zu fragen, welche Informationen auf Stimmzetteln wünschenswert sind. Deshalb sollte zukünftig analysiert werden, welchen Effekt weitere Stimmzettelinformationen hätten und ob diese Informationen dazu beitragen, dass Wähler sich eher für Kandidaten entscheiden, welche sie unter vollständiger Informiertheit ge-

wählt hätten. Letzteres ist insbesondere anschlussfähig an die zahlreichen Studien von Lau (bspw. Lau, Andersen und Redlawsk 2008; Lau und Redlawsk 1997) zum Thema 'correct voting'. Die Analyse anderer Heuristiken auf die Wahlentscheidung lässt sich insbesondere mit Bezugnahme auf (labor-)experimentelle Forschung umsetzen.

Des Weiteren bietet sich eine stärkere Verzahnung der beiden Teile dieser Dissertation an, indem analysiert wird, welche Effekte das Verhalten von Wählern auf die Positionierung von Kandidaten und Parteien hat. Hier wären beispielsweise die Analysen von Baumann, Debus und Müller (2015) zu nennen, bei denen der Einfluss parteipolitischer, persönlicher und Wählerinteressen auf das Verhalten im Parlament analysiert wird. Schließlich lässt sich auch eine stärkere Verzahnung der beiden Teile der Dissertation vorstellen. Eine Möglichkeit wäre hierbei zu analysieren, ob die Anzahl von Präferenzstimmen für einen Kandidaten dessen Verhalten im Parlament beeinflussen. So ließen sich Analysen zum 'Mandate Divide' (bspw. Sieberer 2010) auch in den Kontext offener Wahllistensysteme exportieren. Die Analyse von Stegmaier, Marcinkiewicz und Jankowski (2016) widmet sich diesem Thema bereits.

Part II

CANDIDATES AND VOTERS: OPEN-LIST PR SYSTEMS

2

WHEN THERE'S NO EASY WAY OUT: ELECTORAL LAW REFORM AND BALLOT POSITION EFFECTS IN THE 2011 HAMBURG STATE ELECTIONS

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ABSTRACT

The new electoral law in the state of Hamburg, which was first used in the 2011 elections for the state parliament, abolished the optional overall list vote in the electoral districts and thus forced voters to cast preference votes for individual candidates. Supporters of the new electoral law assume that voters will inform themselves better about the candidates. This assumption contrasts with the voters' tendency to choose their favourite option based on the little information which is provided on the ballot paper. We show that the new electoral law has missed its target and that voters rely heavily on the ballot paper cues, resulting in the replication of the behaviour pattern they were used to under the optional list vote and earlier under the closed list. Most importantly the ballot position has the largest effect on being elected to the parliament.

Keywords: open-list PR · ballot position effects · information shortcuts · Hamburg · electoral system reform

2.1 INTRODUCTION

As observed by Jeffery and Hough, 'Länder parliaments have considerable legislative competencies in key areas like education, culture, public order and regional development' (Jeffery and Hough 2001, 73), and through the Bundesrat they are also involved in the federal legislative process. The visit of the Greek Prime Minister, Antonis Samaras, in Bavaria in December 2012 indicates that the role of the German states has been noticed in the international arena.[1] Their position as veto players became apparent especially in the course of the Euro crisis. The state parliaments have not yet attracted much scientific attention outside of Germany. We intend to close this gap and show, through the example of Hamburg, the effects of electoral law reforms and how German federal states' innovative and often changed voting systems can be used to better understand the patterns of legislative behaviour.

The German scientific debate on the recent Hamburg electoral reform has focused on the question of whether it is responsible for the 6.2 percentage point decrease in turnout (Horst 2011; Jankowski et al. 2013; Schäfer and Schoen 2013).[2] Most often it is argued that the complexity of the electoral law has deterred voters, which led to lower turnout and more invalid ballots. However, the extent to which the new voting options of cumulating and splitting votes for candidates have been adopted by the electorate has not been specifically analysed. The new electoral law was implemented with the aim of giving the voters more influence on the order of candidates, which is decided by a party. The supporters of the reform expected the voters to inform themselves better about the candidates appearing in their electoral districts [3] At the same time candidates may be expected to place more emphasis on their individual campaigns and thus increase the competition not only between parties but also within their own party lists (Zittel and Gschwend 2008). In other words, the electoral law aimed at reducing the influence of parties on the composition of the parliament by introducing the preferential votes and later abolishing the overall list vote.

1 See http://de.reuters.com/article/topNews/idDEBEE8B900R20121210

2 For a discussion of the outcome of the election in comparison to the other elections in 2011 see Olsen (2012).

3 See Horst (2011) for a more general discussion of the normative assumptions of the new electoral law. An overview about the reformation process of the electoral law is given in David (2010), Decker (2007), and Jakobeit et al. (2011).

From the normative perspective these changes may be favourable for implementing 'more democracy' and fighting political lethargy. Preferential voting, defined as the 'opportunity to choose among several candidates of the same party' (Karvonen 2004, 203) is not a unique feature of the electoral law in Hamburg [4]. 'Strong' and 'weak' preferential voting systems are found in 18 out of 64 democracies inspected by Karvonen (2004, 204). Other 34 states allow different forms of personal vote not identified as preferential voting in the narrow meaning. This group includes systems with candidate votes which do not pool at the level of parties, systems with single-member districts and mixed systems (Karvonen 2004, 208). Merely 17 of 64 democracies use exclusively closed lists in elections to the lower houses of their legislatures.

Most of the research on ballot position effects has focused on examples from the United States, where preferential voting, as Karvonen understands it, is usually not used on the national level. Voters cannot choose from several candidates of the same party running for the same office. Party label is then sufficient to differentiate between candidates. In many other types of elections, like the US primaries (Schaffner, Streb, and Wright 2001), or under the open list proportional representation (used in Hamburg), party affiliation is not a unique characteristic of a candidate. Additional information is necessary to select one (e.g. in Poland) or several (e.g. in Hamburg) names from the list. In these circumstances voters tend to rely on data provided on the ballot paper (Faas and Schoen 2006; Marcinkiewicz 2014).

From the perspective of the rational choice theory a voter attempts to minimise her effort and rely in complex decision situations on data provided to her at lowest cost, i.e. on the ballot paper (Downs 1957; Riker and Ordeshook 1968). If this is the case, we should find evidence for systematic effects of certain candidates' characteristics appearing on the ballot paper. In this article we focus on the influence of ballot position effects on the vote cast for candidates in the district vote tier in the 2011 elections to the Hamburg state legislature. We find that the percentage of votes attracted by a candidate within her list is strongly affected by her ballot position and some other factors which are provided on the ballot paper. We therefore conclude that the new electoral

4 An overview of the electoral systems in the German Länder can be found in Massicotte (2004)

law has failed to achieve its target of decreasing the influence of parties on the composition of the parliament because candidates occupying more psychologically prominent positions on the ballot tend to receive systematically more votes than others. In other words, the fear of some politicians that the new electoral law would lead to unpredictable composition of the parliament seems unfounded.

Analysing the technical details of the electoral law, such as the composition of the ballot paper, is important because it may provide evidence that some candidates are elected not due to their competence, but rather due to the technical aspects of the voting systems. Lutz states that 'ideally, voters in elections conduct careful evaluations of parties and candidates, compare them with their own preferences and then cast a vote' (Lutz 2010). Ballot position effects imply the opposite, i.e. voters may vote for candidates according to their position on a ballot instead of taking into consideration their competence. To show that ballot position effects exist, therefore goes hand in hand with a critical discussion about how useful election systems are, when the result is biased by some technical aspects as for example the ballot layout.

This article consists of four parts. Firstly, we describe the new electoral law in the state of Hamburg. Secondly, we present the theoretical assumptions concerning decision-making in the electoral context. Then we briefly present the method and variables we use to analyse voting behaviour in the Hamburg state elections 2011. Finally, our empirical results are summarised and critically discussed.

2.2 THE NEW ELECTORAL LAW IN HAMBURG

The new electoral law in Hamburg has a long history. The electoral law applied to the 2004 elections was rather simple and paralleled the PR tier of the German Bundestag elections. Each voter had only one vote, which she could cast on a fixed party list. There were no electoral districts and the order of names on the list could not be changed by the electorate. These regulations gained criticism, especially from the initiative 'Mehr Demokratie e.V.' ('more democracy'). They demanded more voting options and campaigned for a reform of the electoral law. However, most of the parties were not in favour of the suggestions made by

the 'Mehr Demokratie e.V.', which led to a referendum. As a result the proposed reform was supported by 66.5 per cent of voters (Decker 2007). Nevertheless, since the outcome of the referendum was not binding, the electoral law was amended again prior to its first implementation by the CDU-led government which ruled Hamburg with an absolute majority (Schäfer and Schoen 2013, 104). Thus a 'double-reformed' electoral law has been used for the first time in the 2008 elections (the outcome of the 2008 election is discussed in Jou 2009). It introduced the electoral districts tier in which three to five seats are distributed in each of 17 newly created districts. In total, 71 of 121 members of the Hamburg Parliament are elected in electoral districts. Additionally, the state list (Landesliste) tier, from which 50 candidates are elected, was retained. The state list tier is compensatory and aims at guaranteeing full proportionality according to the number of votes a party received in this tier. Thus, the number of candidates who enter the parliament through the state list tier is computed by subtracting the number of candidates who entered the parliament through the district vote tier from the total number of seats won by the party.

Besides, the new electoral law of 2008 allowed voters to cast up to six votes instead of only one. Five votes could be cast in the electoral district tier and one in the Landesliste tier. These votes could be cumulated or split among candidates and/or parties. In the case of the Landesliste tier voters could only vote for fixed party lists. The district vote tier offered a possibility to vote for candidates or to approve the list order by voting for the whole list. To change the list order in a district vote tier a candidate did not just need to get more votes than others, she also had to get more votes than a defined quota (compare on Czech parliamentary elections Stegmaier and Vlachová 2011). Summing up, the electoral law of 2008 implemented the possibility of casting votes for candidates in electoral districts, but the chances of changing the list order were limited due to rigorous requirements.

After 2008 'Mehr Demokratie e.V.' demanded another reform of the electoral law. This time they reached a consensus with the parties, which agreed to implement the new regulations in 2011 (David 2010). They built on the law of 2008, i.e. voters can cumulate or split their votes among candidates or parties. The option to vote for the whole list as well as a quota needed to change the list order were, however, abolished

in the district vote tier. This means that parties define which position a candidate occupies on the ballot, but the order can be completely changed by the electorate. So, the chances of changing the ballot list order in the electoral district vote were much higher in 2011 than in 2008. The Landesliste tier was also reformed. However, in the case of the Landesliste voters can still vote for the overall party-list instead of being forced to cast their votes for one or more candidates.

This reform of the electoral law was strongly related to normative assumptions about how to fight political lethargy and increase voter turnout.[5] The supporters of the new electoral law assumed that by having more options to cast a vote people will be more motivated to express their political opinion. Moreover, the abolition of the overall list vote in the electoral districts was expected to force the candidates to promote themselves more and increase competition not only between but also within parties. At the same time it was assumed that voters will inform themselves better about candidates running for the parliament in their district and vote for the one they perceive as most competent. As we will show in the next section, these expectations contrast both with the predictions based on the rational choice theory and with findings of previous studies examining behaviour of voters in the face of complex decisions.

2.3 DECISION-MAKING UNDER THE NEW ELECTORAL LAW

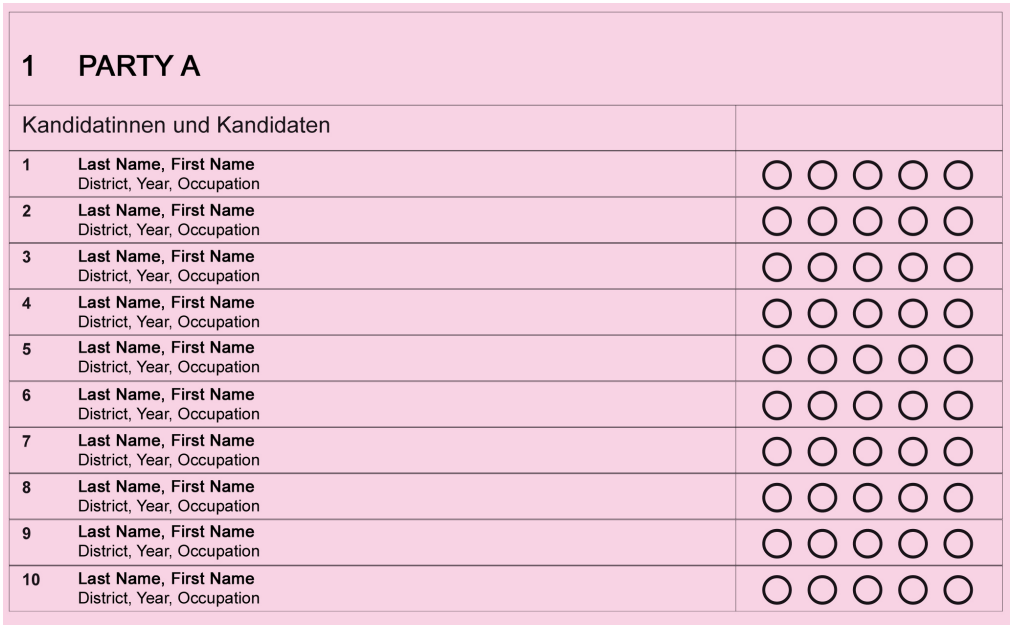
A number of studies discussing voting behaviour underline the limited character of human processing capacities. Time constraint and opportunity costs of paying attention to political events make it impossible for an ordinary voter to obtain exhaustive information on all candidates running in election. Some speak in this context about the democratic dilemma meaning that 'people who are called upon to make reasoned choices may not be capable of doing so' (Lupia and McCubbins 1998, 1).

Existing research suggests, however, that voters are able to develop strategies allowing them to make reasoned choices without access to full information (Lupia and McCubbins 1998, 2). These cost-reducing

5 See for example the arguments on the Homepage of Mehr Demokratie e.V available from http://www.faires-wahlrecht.de/?page=argumente_lang (accessed 06.09.2013).

strategies using selected pieces of easily accessible data are referred to as heuristics (Abelson and Levi 1985; Lau and Redlawsk 2001). The data they rely upon concern the different characteristics of candidates. The most cost-efficient strategy would only use information appearing on the ballot paper. In the Hamburg district vote tier, the kinds of cues used include the first and last names of a candidate (including an academic title if applicable), place of residence (neighbourhood), year of birth and occupation (compare figure 2.1).[6] Additionally, gender and ethnicity may usually be inferred from a person's name.

Figure 2.1: Example of Ballot Paper in Hamburg



1 PARTY A		
Kandidatinnen und Kandidaten		
1	**Last Name, First Name** District, Year, Occupation	○ ○ ○ ○ ○
2	**Last Name, First Name** District, Year, Occupation	○ ○ ○ ○ ○
3	**Last Name, First Name** District, Year, Occupation	○ ○ ○ ○ ○
4	**Last Name, First Name** District, Year, Occupation	○ ○ ○ ○ ○
5	**Last Name, First Name** District, Year, Occupation	○ ○ ○ ○ ○
6	**Last Name, First Name** District, Year, Occupation	○ ○ ○ ○ ○
7	**Last Name, First Name** District, Year, Occupation	○ ○ ○ ○ ○
8	**Last Name, First Name** District, Year, Occupation	○ ○ ○ ○ ○
9	**Last Name, First Name** District, Year, Occupation	○ ○ ○ ○ ○
10	**Last Name, First Name** District, Year, Occupation	○ ○ ○ ○ ○

Apart from the aforementioned explicitly stated attributes, the positions of candidates on the party list may also influence their chances of being elected. This may happen as a result of two different strategies used by voters. The low-information voters may simply support candidates occupying prominent places on the ballot paper without reflecting on their actions. They would then behave similarly to respondents who tend to choose certain psychologically prominent answer options when they participate in a survey (Weisberg 2005, 108-109). The high-

6 Due to privacy protection figure 2.1 is a 'neutral' version of a ballot. However, the original ballots for all 17 electoral districts are available from http://www.hamburg.de/wahlen/hamburg-wahlen/2644256/stimmzettel.html (accessed 11.09.2013).

information committed partisans may, on the other hand, interpret a candidate's position on the ballot paper as a signal of endorsement by the party elite. In both cases the effect would be similar – candidates placed at focal points on the list will gain disproportionally more votes than their colleagues whose names appear in less attractive areas of the ballot paper. The existence of strong ballot position effects indicates either the inability or unwillingness of voters to differentiate between individual candidates backed by a given party. In the context of the Hamburg state elections they may be interpreted as a substitute for the abolished party vote.

Previous research has found evidence of ballot position effects under several voting systems. In the US context systematic bias in favour of candidates placed in certain parts of the ballot paper was observed in low visibility elections and in primaries (Miller and Krosnick 1998; Schaffner, Streb, and Wright 2001). As far as the high visibility federal level elections are concerned, evidence of the ballot position effects is weaker (Darcy 1986). For the Australian legislative elections before 1984 and for the Spanish Senate elections in the 1980s scholars observed the practice of alphabetic voting (Kelley and McAllister 1984; Lijphart and Pintor 1988; Kelly and McAllister found no evidence of alphabetic voting in the United Kingdom). It can be considered a specific form of ballot position effect benefiting candidates with names closer to the beginning of the alphabet (e.g. candidate A received systematically more votes than candidate Z). It was a side-effect of the practice of placing candidates on the ballot paper in alphabetical order. Unlike the purposeful arrangement of names on the list by a party (as it is in Hamburg), the alphabetical order position is a low-quality cue. Furthermore, in single-member districts (USA, Australia), the ballot position does not convey any signal to the voter. In such situations it must be assumed that only low-information voters would support candidates occupying psychologically prominent regions of the ballot paper. With regard to proportional representation, evidence of ballot position effects was found in the Swiss parliamentary elections (Lutz 2010), the Polish parliamentary elections (Marcinkiewicz 2014), the Bavarian state elections (Faas and Schoen 2006) and the Belgian regional elections (Geys and Heyndels 2003). All of these examples are relevant to our present analysis due to the similarities in the electoral regulations.

According to the experiences drawn from survey research, there are two types of mechanisms that identify the psychologically prominent position on the ballot paper. The first mechanism known as the 'primacy effect' is reflected by the preference for the first answer option. It has been observed in surveys that require a respondent complete a written questionnaire (Dillmann, Smith, and Christian 2009, 318). It may thus be argued that, since a ballot paper is a form of a written questionnaire, this type of effect should be most prominent during voting decisions. The second mechanism is a 'recency effect' and consists in favouring the last answer option on the list (Dillmann, Smith, and Christian 2009, 109). This type of bias was recorded especially in oral interviews. Respondents tend to choose the last item on the list, because it has been most recently pronounced by an interviewer. Research and theory on ballot positions, therefore, may be best compared to buying wine at a supermarket. Most wines are almost the same and differ only slightly. Ballot position effects follow a logic well known to every shop owner: when you don't know which wine you want to buy, you are more likely to buy the wine which you see first (which is why the more expensive wines are usually placed at the eye-level and the cheaper ones close to the ground).

Of course, like when buying wine, voters do not have to rely only on the position of a candidate. They may take a closer look at all candidates and read other information provided on the ballot paper. This, however, requires more effort from them than just making an x-sign (or up to five x-signs as in Hamburg) next to the names of candidates occupying psychologically prominent positions on the list. Voters may for example prefer a candidate who has a specific job associated with more trustworthiness. They may also think that some candidates are too young or too old to run for the parliament. Therefore, we have to control for these variables. Candidate information provided on the ballot paper may assist voters in making a correct decision. Yet, it seems fairly unrealistic that they will lead to an accurate guess whether a candidate will be a good politician or not. The opposite might be the case: due to reliance solely on information provided on the ballot, elected candidates may be less heterogeneous.

The third strategy, used by most committed voters, will rely on information not provided on the ballot paper. To gather additional data a

voter would have to make an effort in advance, for example, by following the electoral campaign in the mass media. In the case under review we will control for two variables indicating use of this strategy. These are incumbency, defined as holding a seat in the State Parliament before the elections, and a variable which accounts for the simultaneous appearance in the Landesliste tier.

In the following we will analyse the ballot position effects in the 17 electoral districts during the 2011 Hamburg state elections. We focus on the electoral districts for two reasons. First, the Landesliste tier and the district vote tier are not comparable since it is still possible to vote for the whole list on the Landesliste, while voters are forced to vote for individual candidates in the electoral districts. Secondly, the prominence of the candidates on the Landesliste differs extremely from those in the electoral districts. The Landesliste is much more important for the parties as it decides about the number of seats a party gets in the parliament. Hence, it seems reasonable for the parties to place their most prominent party members on the Landesliste as this will increase their chance to get some extra votes. However, this would result in a strong bias when analysing ballot position effects on the Landesliste as prominence of the candidates interacts with their position on the Landesliste (Darcy and McAllister 1990, 6). For example Olaf Scholz, the former federal minister, was placed first on the SPD-Landesliste and attracted 38 per cent of all votes cast for the SPD at the state list tier. Here, it is hard to tell whether it has been the ballot position or the prominence of Olaf Scholz that was responsible for his good outcome.

The fact that most of the prominent party members were placed in the Landesliste tier is at the same time an advantage for analysing ballot position effects in electoral districts tier. The magnitude of the structural bias caused by prominence of the candidates is then reduced. Furthermore, the effect of proxies for prominence such as incumbency will be controlled for by taking into consideration a dummy variable differentiating between incumbents and those who did not previously hold a parliamentary seat. In general, most local candidates can be assumed to be relatively unknown.

Drawing on the aforementioned theoretical arguments and on previous research we formulate the first hypothesis thus:[7]

7 The data was collected from the Homepage of the Statistikamt Nord available from http://wahlen-hamburg.statistik-

H1: *Effects related to variables associated with the most parsimonious decision strategy (ballot position effects) will be able to explain candidates' results better than effects related to variables associated with less parsimonious decision strategies (explicit ballot paper cues or external data).*

In order to test our first hypothesis we will estimate four regression models. Three of them will use different sets of explanatory variables and in the fourth all types of effects will be compared simultaneously.

In the second step we will focus on ballot position effects, because we expect them to be particularly strong under the new Hamburg voting system. Our second hypothesis will consist of three statements referring to three different types of ballot position effects we expect to observe. First, we investigate the primacy effect most often reported in the academic literature:

H2a (primacy-hypothesis): *Candidates occupying the first place on the ballot paper will receive significantly more votes than other candidates.*

Moreover, we can assume that the general list order of a ballot has an influence on casting votes. It means that the second candidate is more likely to attract more votes than the third and so on. Therefore:

H2b (rank-order hypothesis): *The closer a candidate is to the top of the ballot, the more votes she will receive.*

It has also been argued that the last position has a positive effect on candidate's result. This is so, since the last place can also be seen as a more or less prominent position on the ballot. We thus formulate our next hypothesis:

H2c (recency-hypothesis): *The last position on the ballot will attract more votes than the penultimate position.*

Since the large parties (i.e. the SPD and the CDU) are more likely to be better known, we can assume that voters will hold more information about their candidates. This is more so due to the application of the electoral threshold for the more prominent Landesliste tier. Only the factions that attract at least 5 per cent of votes participate in the distribution of parliamentary seats reserved for the Landesliste tier, so candidates of large parties have a higher chance of being elected. This effect may spill over to the candidates of larger parties in the district vote tier. Therefore, ballot position effects are more likely to be observed in the

nord.de/frameset.php?file=status_karte&wahl=773&frame=true (accessed 06.09.2013).

case of smaller parties (i.e. the FDP, die Linke and the Greens known in Hamburg as the GAL).

H3 (small-parties-hypothesis): *Smaller parties will be more affected by ballot position effects than larger parties.*

2.4 METHODS AND VARIABLES

Our hypotheses will be tested within the framework of the OLS-Regression. The dependent variables in estimated regression models are votes cast for an individual candidate expressed as a percentage of all votes cast for her party list in a district vote tier in a given district. Thus the operationalised dependent variable may not fit all the assumptions of the linear regression model. In particular, predicted values may turn out to be either lower than zero or higher than 100, due to the expected disproportional gains for the candidates placed at the top of their party lists (Taagepera 2011). We therefore computed the natural logarithm of the percentage of list vote. A scatterplot shows that the deviance from the OLS regression model assumptions will then be reduced.

Figure 2.2: Scatterplot between stand. ballot position and vote share

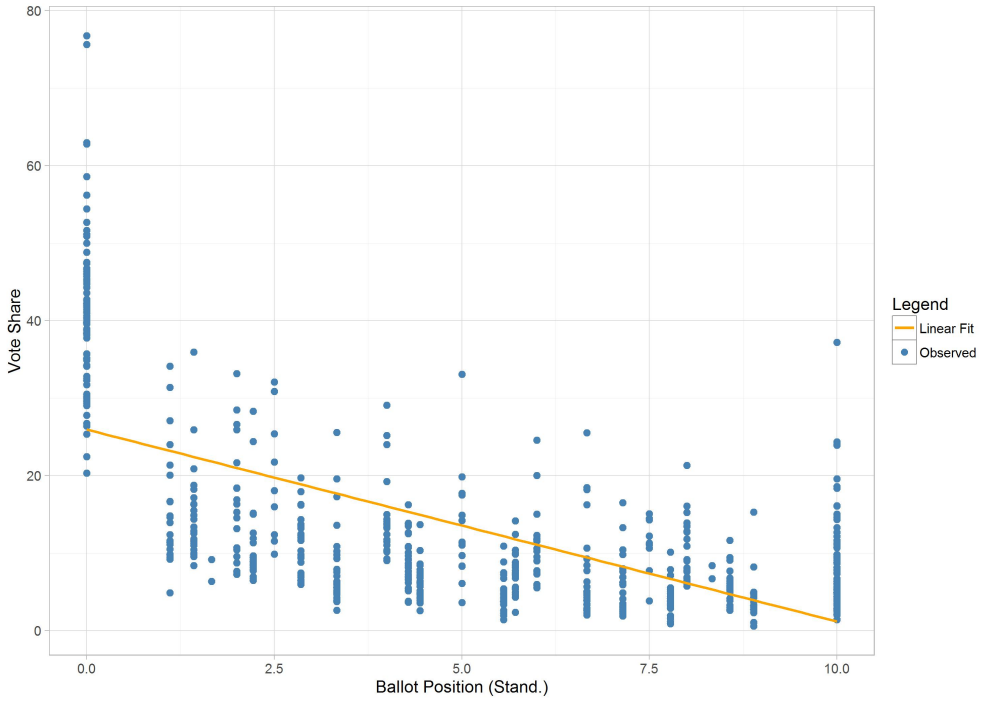


Figure 2.3: Scatterplot between stand. ballot position and logged vote share

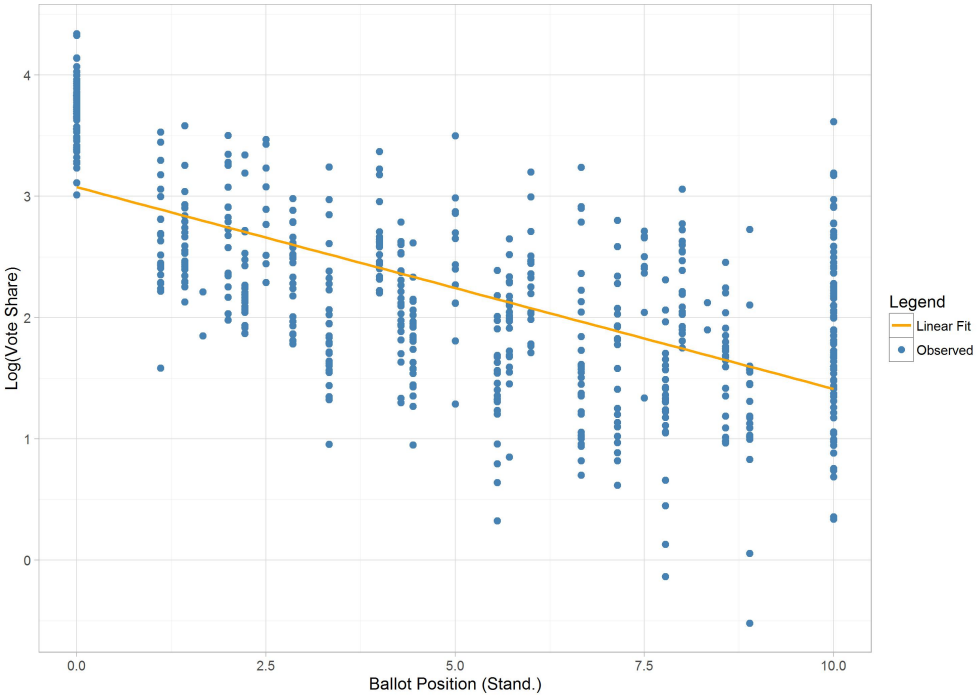


Figure 2.3 shows that the logarithmised variable fits the OLS model better. The first and the last positions are nevertheless underestimated by the regression prediction. We therefore include two dummy-variables in our model which control for the first and the last position of a candidate on the ballot respectively.

In addition to the two dummy-variables for the first and the last ballot position, we include a standardised ballot position variable (rank stand). The length of the lists varies between a maximum of 6 to 10 candidates between the electoral districts depending on the population of a district.[8] Therefore, the effect of the unstandardised ballot position variable may be biased. We standardise the ballot position using the following formula:

$$\frac{\text{Ballot Position} - 1}{\text{Number of Candidates on List} - 1} * 10 \tag{2.1}$$

8 The FDP and die Linke did not fill out every place on the ballot, which is why in some districts the electoral district tire of the FDP or die Linke consisted of less than six candidates. In some rare cases the electoral district tire consisted only of two candidates.

This variable has a range between 0 and 10. The first candidate is always coded as 0 and the last candidate as 10. In addition, we control for some other information provided on the ballot paper. A dummy variable for gender is included as well as a variable which controls for a possible migration background of a candidate. The information for both variables was derived from the name of a candidate. The age in decades is considered both as linear and as squared term to control for a curve-linear connection. Further variables indicate whether a candidate was also placed on the Landesliste and if she was a member of the parliament between 2008 and 2011. Moreover, we controlled whether a candidate holds academic titles such as 'Dr' and/or 'Prof'. Finally, the last information on the ballot, where the candidate lives, has been included as a dummy variable to indicate if a candidate lives within or outside of the district.

2.5 EMPIRICAL RESULTS

Table 2.1 contains the results of the regression analysis testing the hypotheses 1, 2a, 2b and 2c. Models 1, 2 and 3 use different sets of explanatory variables related to the theoretically founded strategies of candidate selection by voters. The last model includes the whole set of variables, which allows for their simultaneous consideration.

The first model includes only variables referring to the three types of ballot position effect. Effects of all three explanatory variables surpass the conventional levels of statistical significance. Furthermore, they are able to explain roughly 58.4 per cent of the variance observed in the dependent variable. This may be interpreted as the first piece of evidence speaking for the high explanatory power of ballot position effects and thus the popularity of the most parsimonious voting strategy.

The explanatory power offered by the second and the third model is lower than that of model 1. Model 2 explains roughly 8.7 per cent and the third model 20.2 per cent of the variance observed in the data. In model 2, age, age squared, academic title and residence in the district one is running from have a significant influence on the percentage of the list vote obtained by a candidate. Older candidates are preferred to their younger competitors. The quadratic term referring to age in-

dicates, furthermore, the preference of voters for the middle-aged individuals appearing on the district lists. Positive effects of title and residence in an electoral district also correspond with our expectations and conclusions reached by other researchers (Schneider and Tepe 2011; Shugart, Valdini, and Suominen 2005). The effects of gender and the migration background are not statistically significant.

The third model solely uses two variables not included on the district vote tier ballot paper, incumbency and simultaneous candidacy in the Landesliste tier. Although both of them are highly significant and the model fit is better than in case of the model 2, one has to perceive these results with caution. Both variables are proxies for prominence. This may, however, also be signalled by the parties through assignment of a candidate to a psychologically prominent position on the ballot paper. Hence, in order to better assess the influence of the external cues on the candidates' results, we turn to model 4. The effects of both variables are, as expected, weaker and less statistically significant. Incumbency and residence of a candidate fail to reach conventional levels of statistical significance.

Altogether, the four aforementioned models speak in favour of H1. Variables referring to the ballot position effects can best explain candidates' results. They also remain highly statistically significant when we control for other candidate's characteristics. Besides, the effects of age, quadratic age term, the academic title and the residence in the voting district remain robust in the model with controls. External variables relating to candidates' prominence have, on the other hand, limited added value.

Results of models 1 and 4 confirm, furthermore, our expectations stated in H2a, H2b and H2c. All three types of ballot position effects are observed in the district vote tier of the Hamburg state election 2011. The value of the rank position coefficient in the model 4 indicates that moving a candidate by 1 standardised rank position (1/10 of the overall list length) down the list, decreases her list vote results by 12.63 per cent (Gujarati 2004, 180). Two additional variables control for the first and the last position bonus. Appearing on the top position on the ballot improves a candidate's result by 148.18 per cent, whereas being last on the list reverses the negative trend so that candidates end up with 78.6

per cent more votes than would be expected based on their distance to the first rank.

Using the method of transforming the predicted values back to the original scale developed by Cameron and Trivedi, we compute the percentage of votes expected to be received by the first-ranked candidates (Cameron and Trivedi 2010, 108). Depending on their other characteristics those appearing at the top of the ballot paper could count in the district vote tier of the Hamburg state election on 26.75 per cent to 69.63 per cent of votes cast for their party list. Those running from the second place were expected to receive only between 5.09 per cent and 24.49 per cent of the list vote.

The reversal of the trend observed at the bottom of the ballot is reflected by the percentage of the list vote predicted for candidates occupying the last and the next to last slot. Those placed at the end of the list received between 4.16 per cent and 12.25 per cent of the votes cast for their party in a given district. Candidates appearing on the penultimate place on the ballot attract between 2.92 per cent and 9.9 per cent of list vote. Analogously to the tendencies found among respondents filling in the written questionnaires, the 'primacy effect' is more relevant to open-list elections than the 'recency' effect. Candidates whose names appear at the top of the list have the best chances of being elected.

Table 2.1: Regression analysis for the Hamburg 2011 elections. Dependent variable is the logarithmised percentage of vote cast for a candidate within a given party list

	(1)	(2)	(3)	(4)
Ballot Position (Stand.)	-0.147**			-0.135**
	(0.011)			(0.010)
First Position	0.902**			0.909**
	(0.058)			(0.056)
Last Position	0.588**			0.580**
	(0.081)			(0.076)
Age (decades)		0.856**		0.326**
		(0.143)		(0.119)
Age (decades) sq		-0.091**		-0.037**
		(0.014)		(0.012)
Female		0.069		0.054
		(0.061)		(0.044)
Migrant		-0.081		0.029
		(0.106)		(0.081)
PhD Title		0.399**		0.271**
		(0.146)		(0.076)
Lives in ED		0.358*		0.417**
		(0.145)		(0.091)
Incumbent			1.073**	0.074
			(0.083)	(0.054)
Land tier			0.358**	0.087†
			(0.083)	(0.050)
Constant	2.778**	0.070	2.063**	1.668**
	(0.047)	(0.388)	(0.048)	(0.319)
N	627	627	627	627
adj. R^2	0.584	0.087	0.202	0.634

Standard errors in parentheses

† $p < 0.10$, * $p < 0.05$, ** $p < 0.01$

Are these effects similar for all parties? To answer this question we estimated a separate regression model for each party in a second step. Table 2.2 shows that the main patterns found in the analysis including all candidates can also be observed in sub-samples including candidates of only one given political group each. For every party we were able to identify the existence of the primacy and the 'rank-order effect'. The 'recency effect', on the contrary, can be reported for all parties except for the GAL. However, when controlling for the parties, some differences from the general model become visible. First of all, age no longer has a significant effect, which is probably due to the smaller number of cases. Furthermore, the gender-variable shows a significant effect for the GAL and Die Linke. On the lists of these two groupings women received significantly more votes than male candidates. The academic title, which was also significant in the general model, is now only significant for the CDU. In contrast, the incumbency variable, which was not significant in the general model, has a positive effect for the SPD. Finally, living in the electoral district improves the individual results of the candidates for the SPD, the CDU and the FDP, but not the GAL and Die Linke.

In sum, the ballot position effects remain generally stable for all parties, while variables referring to other characteristics of the candidates may have different effects depending on the political group they are affiliated with. The adjusted r-squared-values make it clear that these effects are more pronounced in the case of the SPD and the CDU. This is in contrast to our small-party-hypothesis that smaller parties will be more affected by ballot position effects.

Table 2.2: Regression analysis for the Hamburg 2011 elections by party. Dependent variable is the logarithmised percentage of vote cast for a candidate within a given party list

	SPD	CDU	GAL	FDP	Linke
Ballot Position (Stand.)	-0.152**	-0.184**	-0.099**	-0.115**	-0.067**
	(0.017)	(0.025)	(0.017)	(0.027)	(0.021)
First Position	0.591**	0.688**	1.028**	0.880**	0.973**
	(0.129)	(0.167)	(0.121)	(0.187)	(0.155)
Last Position	0.612**	0.696**	0.031	0.550*	0.512**
	(0.147)	(0.127)	(0.134)	(0.240)	(0.172)
Age (decades)	0.310	0.174	0.153	0.410	0.206
	(0.221)	(0.252)	(0.317)	(0.240)	(0.248)
Age (decades) sq.	-0.035	-0.022	-0.021	-0.056*	-0.027
	(0.021)	(0.024)	(0.034)	(0.023)	(0.025)
Female	-0.034	-0.067	0.201*	0.118	0.202*
	(0.073)	(0.080)	(0.091)	(0.109)	(0.094)
Migrant	0.108	-0.160	0.140	-0.055	-0.035
	(0.137)	(0.184)	(0.139)	(0.345)	(0.088)
PhD Title	0.193	0.655**	0.168	0.203	
	(0.135)	(0.137)	(0.235)	(0.132)	
Lives in ED	0.590**	0.449**	0.101	0.287*	0.153
	(0.182)	(0.116)	(0.104)	(0.102)	(0.124)
Incumbent	0.393**	0.203	0.026	0.000	0.039
	(0.069)	(0.158)	(0.166)	(.)	(0.176)
Land tier	0.007	0.021	0.073	0.022	0.054
	(0.129)	(0.081)	(0.125)	(0.109)	(0.130)
Constant	1.508*	2.139**	2.092*	2.058**	2.164**
	(0.563)	(0.653)	(0.753)	(0.611)	(0.623)
N	142	142	142	95	106
adj. R^2	0.754	0.758	0.639	0.653	0.548

Standard errors in parentheses

† $p < 0.10$, * $p < 0.05$, ** $p < 0.01$

2.6 CONCLUSION

In this article we have shown that the percentage of list vote cast for a candidate in the 2011 Hamburg state elections can be best explained

by her position on the ballot. We were able to provide evidence for the 'primacy effect', the 'rank-order effect' and the 'recency effect'. The 'primacy effect' and the 'rank-order effect' are most relevant as indicated by the predicted values of the dependent variable. These results indicate that voters rely heavily on the ballot paper cues, which leads to the replication of the behaviour pattern they became accustomed to under the optional list vote and earlier under the closed list. In a nutshell, voters substitute the nonexistence of the optional list vote by supporting the top candidate.

The relevance of effects is additionally corroborated by the number of candidates who were elected thanks to changes wrought by the preference votes to the order set by the parties. Of the 71 candidates elected in the district vote tier, only nine gained a mandate due to changes in the list order. Accordingly, nine candidates who would have been elected if the list order were fixed did not enter the parliament. Only the SPD and the GAL were affected by the preference votes, whereas every successful candidate of the CDU, the FDP, and Die Linke was elected due to her ballot position. In two electoral districts the GAL candidate occupying the second position on the ballot received more votes than the candidate placed at the top of the list.[9] The other seven significant changes took place on SPD vote tiers.[10]

What does this imply for the electoral law reform in Hamburg? We can state that the goal of the new electoral law, to reduce party-influence on the composition of the parliament, was missed. Voters mostly supported the list order, which is defined by the parties. This does not mean that a new reform is necessary. Ballot position can still be used by the parties as a meaningful signal for the voters due to the practice of non-random arrangement of candidates' names on the ballot paper. Our re-

9 These electoral districts are Hamburg-Mitte and Stellingen-Eimsbüttel-West. In Hamburg-Mitte the candidate placed on the first position received negative media coverage, which can explain why the second candidate obtained significantly more votes. See for example Hamburger Morgenpost Online, "Schlammschlacht um GAL-Wahlliste", available from: http://www.mopo.de/wahl-2011/wahlkampf-schlammschlacht-um-gal-wahlliste,7137908,7171984.html (accessed 20.10.2013).

10 Here also a closer look at some of the candidates helps to understand why the ballot position did not have the expected effect. For example in the electoral district Barmbek-Uhlenhorst-Dulsberg Jan Ehlers was elected to parliament although he was placed at the last place of the ballot. However, the high number of votes Ehlers gained can be explained by his prominence, since he is a former minister of one of the previous Hamburg governments. Combined with the 'recency effect' this can explain the change of the list order.

sults suggest, nevertheless, that the expectations of policy-makers and activists to reduce political lethargy by giving the electorate more options should not be too high. Of course, there will be some voters who act as expected and inform themselves exhaustively about candidates, but patterns of electoral behaviour we observe suggest that they do not represent the majority of the electorate.

3

ARE POPULIST PARTIES FOSTERING WOMEN'S POLITICAL REPRESENTATION IN POLAND? A COMMENT ON KOSTADINOVA & MIKULSKA

Michael Jankowski · Kamil Marcinkiewicz

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ABSTRACT

In a recent contribution to *Party Politics*, Kostadinova and Mikulska analyze women's political representation by populist parties in Poland and Bulgaria. The presented findings for Poland suggest that the main right-wing populist party PiS (1) elected more women to parliament, (2) nominated more women to promising ballot positions and (3) that voters of PiS were more likely to support women in the elections compared to leftists parties. We disagree with all three findings. While the first finding is due to an error in the descriptive statistics, we argue that the other two findings are the result of an inappropriate research design. We replicate the analysis based on an altered research design and show that PiS did not elect more women to parliament, did not nominate more women to promising ballot positions and that voters of PiS were not more likely to vote for female candidates.

Keywords: women's representation · candidate nomination · populist parties · Poland · open-list PR systems

3.1 INTRODUCTION

The rise of populist parties in Europe is a well-studied phenomenon in political science literature (e.g. Kriesi and Pappas 2015; Mudde 2007). Almost all European countries have witnessed the emergence (and sometimes decline) of populist parties in the last twenty years. Countries from Central and Eastern Europe are no exception. In Poland, the populist party "Law and Justice" (PiS) has been one of two major parties dominating Polish politics since 2005. With respect to questions of gender equality, (right-wing) populist parties are often characterized by their rather misogynistic opinions. Therefore, it is interesting to analyze how women's political representation differs between populist and non-populist parties. In a recent contribution to *Party Politics*, Kostadinova and Mikulska (2015) offer an analysis of this issue for Poland and Bulgaria. In this paper, we provide a comment on their analysis of women's representation in Poland with a focus on PiS.

PiS was founded in 2001 by twin brothers Jarosław and Lech Kaczyński, drawing on the popularity of the latter as minister of justice in the cabinet of Jerzy Buzek. The party focused initially on law and order issues. It became prominent due to its advocacy of more severe penalties, including the re-introduction of the death penalty, and denouncing "hidden networks of influence and corruption" (Tworzecki 2012, 617). The profile of PiS started expanding during the fifth legislative period (2005-2007), when it entered a coalition with two other populist parties, the far-right League of the Polish Families (LPR) and the agrarian protest party Self-Defense (Samoobrona). PiS gradually took over some of the issues advocated by these two parties, and was thus able to attract large sections of their electorate at the parliamentary election of 2007. During both parliamentary elections of 2005 and 2007, PiS "exploited populist themes and slogans" (Jasiewicz 2008, 8), but in 2007 it moved even further to the right and "abandoned any attempts to coax the political middle" (Jasiewicz 2008, 23). The development most relevant to the question raised by Kostadinova and Mikulska (2015) was the emergence of an alliance between PiS and the fundamentalist Catholic groups, which previously supported the LPR (Gwiazda 2008, 761). In exchange for obtaining their endorsement, PiS started strongly promoting a conservative moral policy platform. PiS took a stance critical of

gender equality, which developed into open hostility at the height of the party's campaign directed against the so-called "gender-ideology". The party's position on that issue can be exemplified by a speech held in parliament by MP Artur Górski, who said that "gender [ideology] is a cultural temptation, changing a human into a slave" and that it "is more dangerous than Marxism".[1]

Both male and female representatives of PiS spoke in the plenary sessions of the Sejm against the promotion of gender equality in schools.[2] Members of PiS lobbied strongly against the ratification of the "Convention on Preventing and Combating Violence against Women and domestic Violence". The convention was denounced by speakers representing PiS as "pathological", "unnatural" and "stripping demoralized children of their dignity".[3] Furthermore, all 129 legislators of PiS voted against the amendment to election law introducing gender quotas to the Polish Sejm elections in 2011.[4]

In view of the aforementioned facts regarding PiS' position on gender equality, the results reported in Kostadinova and Mikulska (2015, hereafter KM) appear to be completely counterintuitive. PiS is strongly opposed to gender equality and one would not expect this party to particularly foster the political representation of women. Yet, according to KM, PiS is an example of the "puzzling success of populist parties in post-Communist Europe in electing women to public office" (Kostadinova and Mikulska 2015, 2). In particular, KM argue that PiS "managed to elect more women to the national legislature than the main leftist parties", because they "did much better in ranking women high on the list" and because "PiS voters, along with those of the PO, invest more in female candidates by ranking them higher on the list than do leftists'

1 Compare his speech from the 46th session of the Sejm on July 23, 2013 (http://www.sejm.gov.pl/Sejm7.nsf/wypowiedz.xsp?posiedzenie=46&dzien=1&wyp=70).

2 In his speech in the 41st session of the Sejm, MP Sławomir Kłosowski attacked the book "Teaching Equality" recommended to teachers by the Ministry of Education. He made lessons on equality responsible for "intrusive propagating of homosexuality [...] destroying moral, ethical and social values of young children" and "generating new conflicts in Polish schools" (see http://www.sejm.gov.pl/Sejm7.nsf/wypowiedz.xsp?posiedzenie=41&dzien=2&wyp=39).

3 Compare the speech of MP Krystyna Pawłowicz in the 75th session of the Sejm on September 24, 2014 (see http://www.sejm.gov.pl/Sejm7.nsf/wypowiedz.xsp?posiedzenie=75&dzien=1&wyp=162).

4 The voting records can be accessed at: http://orka.sejm.gov.pl/SQL.nsf/glosowania?OpenAgent&6&79&125.

supporters" (Kostadinova and Mikulska 2015, 10) in the Polish open-list PR system.

These conclusions do not only contrast with the intuitive expectations about the position of right-wing populist parties on gender equality, they are also contradictory to existing studies discussing the problem of women political representation in Poland. Gwiazda (2015) shows that the introduction of gender quotas for the Polish Sejm election was possible due to the actions taken by the centrist PO, supported by the SLD and also, reluctantly, by its coalition partner, the PSL. PiS rejected the reform. In a similar vein, Dubrow (2011) shows that the support of gender quotas by Polish candidates strongly depends on their party ideology. Conservative candidates opposed the introduction of gender quotas, whereas more liberal candidates supported the reform. Most importantly, and in contradiction to the results presented in KM, Gorecki and Kukolowicz (2014) provide a comprehensive analysis of the electoral success of women in the Polish parliamentary elections of 2007 and 2011. Gorecki and Kukolowicz (2014) demonstrate that in the election of 2011, female candidates of the socially conservative parties, PiS and the PSL, were in fact the most disadvantaged. They conclude that perhaps "female candidates running on behalf of such parties encounter severe difficulties finding enough niches in the electorate where votes based on gender can be sought" (Gorecki and Kukolowicz 2014, 75). Therefore, the findings of KM are also puzzling with respect to existing research on this topic.

In this paper, we argue that the results of KM regarding PiS' promotion of women's political representation are untenable. We show that PiS did not elect particularly more women to parliament, and that this finding by KM results from an error in descriptive statistics. More importantly, however, we argue that the employed regression analyses are inappropriate for analyzing party and voter preferences regarding women. We conduct a replication of the results based on the same data, but offer an improved research design and show that PiS did not nominate more women to promising ballot positions compared to more liberal parties. Additionally, our analysis of voter preferences shows that PiS voters were not more likely to vote for female candidates. Instead, our results suggest that the gender of a candidate did not play an important role in voter's decision making process. In short, we come to the

conclusion that PiS is not particularly supportive of women in politics and that more liberal parties, the PO and the SLD, often perform better regarding women's political representation. Accordingly, we find no evidence for a "puzzling success of populist parties in promoting women's political representation" in Poland.

The article is structured as follows: In the next section, we correct the results reported in Table 2 from KM regarding the percentages of women elected to parliament by each party. We show that PiS elected fewer women than the PO and the SLD in at least three out of four elections under consideration. We then intensively discuss the research design employed in KM to analyze party and voter preferences regarding women in the Polish open-list PR system. We highlight the inappropriateness of using the predicted ballot position of women as an indicator of women's successful political representation. After describing our own research design, we present our results and highlight how they differ compared to the findings presented in KM.

3.2 WOMEN ELECTED TO PARLIAMENT IN POLAND

As the first step of their analysis, KM analyze the percentage of women elected to parliament by four major Polish parties (PiS, PO, SLD, PSL) in the elections of 2001, 2005, 2007 and 2011. The results are presented in Table 2 of KM (Kostadinova and Mikulska 2015, 6). However, the table contains an error. The reported numbers of the total seats won and the number of women elected to parliament by each party are correct.[5] Yet, the resulting percentages of women elected to parliament by each party are wrong. They are the percentages of female legislators of the Bulgarian parties, which were already reported in Table 1 of KM (Kostadinova and Mikulska 2015, 5).

In Table 3.1 of this paper, we report the corrected results. They clearly show that in all four elections the PO elected a higher proportion of

5 It should be noted that the column totals of the number of seats won by each party and the number of women elected to the Sejm are computed inconsistently in KM. The total number of seats in KM's table refers to all seats of the Sejm (460), which includes smaller parties that are not displayed in the table. In contrast, the total of women elected to the Sejm includes only women representing the four analyzed parties. Both totals can hardly be compared because also smaller parties elected women to parliament.

women to parliament than PiS. Also the leftist SLD, compared to PiS, elected more women to parliament in three out of four elections. The only exception is the election of 2011. PiS only performs better compared to the PSL, which elected almost no women to parliament in all of the four elections. Yet, since the PSL is an conservative agrarian party, the claim that PiS "managed to elect more women to the national legislature than the main leftist parties" (Kostadinova and Mikulska 2015, 10) is not supported by the data.[6]

Table 3.1: Women elected to Parliament in Poland by Party and Election Year

		Election Year			
Party	# / %	2001	2005	2007	2011
PO	# Women	13	33	48	72
	# Seats	65	133	209	207
	% Women	20	24.8	23	34.8
SLD	# Women	55	11	11	4
	# Seats	216	55	53	27
	% Women	25.5	20	20.8	14.8
PiS	# Women	6	29	34	27
	# Seats	44	155	166	157
	% Women	13.6	18.7	20.5	17.2
PSL	# Women	0	1	1	2
	# Seats	42	25	31	28
	% Women	0	4	3.2	7.1
Total	# Women	74	74	92	105
	# Seats	367	368	459	419
	% Women	20.1	20.1	20	25.1

Note: Total refers to the total of legislators of the four analyzed parties. Thus, this table does not display the number of all women elected to the Sejm, since smaller parties also elected women to parliament.

6 Gwiazda (2015) offers a more detailed description of the percentages of women elected by each party for all Polish elections since 1991.

3.3 ANALYZING WOMEN'S REPRESENTATION IN POLAND

3.3.1 *KM's Research Design*

In addition to the descriptive statistics of how many women were nominated and elected to parliament by each party, KM offer a more detailed analysis of women's representation in the Polish open-list PR system. KM analyze the chances of women to be nominated to a promising ballot position and voters' preferences regarding women, by employing two different regression analyses (Kostadinova and Mikulska 2015, 7-8). The first is the "party preference model", and it is used to answer the question of whether male or female candidates are placed generally lower or higher[7] on the ballot paper by *parties*. The second model, the "voter preference model", is employed to analyze the preferences of voters regarding candidates. Thus, this model answers the question whether *voters* generally prefer to vote for female or male candidates. Both models use the same set of independent variables, including the gender, age, occupation and party affiliation of a candidate, election year, party and district magnitude, and a measure for the urbanization of the electoral district. Additionally, the voter preference model controls for the initial position of a candidate on the ballot paper. Of course, the main interest of the analysis lies in the effect of the gender variable, which is additionally interacted with several of the other independent variables, most importantly with party affiliation and the election year.

There is a slight variation in dependent variables between the two models. The party preference model uses the initial ballot position of a candidate as the dependent variable. In contrast, the dependent variable in the voter preference model is the ranking of the candidates based on their received votes in the election. Since the dependent variables are treated as being similar to count data, KM use negative binomial regression for their analysis.

7 We refer to a *higher* ballot position as a more promising position closer to the top of the ballot paper. In contrast, a *lower* ballot position indicates a less promising position at the bottom of the ballot paper.

3.3.2 *Problems in KM's research design*

We doubt that the research design in KM can be used to answer the aforementioned research questions. Our critique focuses primarily on the validity of the employed research design in KM. In particular, we demonstrate that the predicted (average) rank of female candidates on the party list, which is the quantity estimated in KM, is an invalid indicator of women's successful representation. However, we also highlight two aspects which question the validity of the findings, even if the dependent variable were suitable for the analysis. In short, we believe that not only the general research design employed in KM, but also the interpretation of their regression analysis has shortcomings. In the following two sections we will discuss these problems separately.

3.3.2.1 *Interpretation of interaction effects*

The negative binomial regression model[8] employed in KM includes several interaction terms. The gender variable is interacted with the variables district magnitude, party magnitude, urbanization, party membership and election year. While the inclusion of interaction terms allows for a more fine grained analysis of the gender effect, the interpretation of these effects becomes more challenging (Brambor, Clark, and Golder 2006; Kam and Franzese 2007). KM's analysis includes two shortcomings in this regard which hinder the correct interpretation of the gender effect.

First, KM analyze only some of the coefficients of the several interactions of the gender variable. Moreover, KM analyze these effects in isolation. That is to say, KM analyze in a first step the coefficient of the gender variable, without taking into account the effect of all constitutive terms of the interaction. Based on this interpretation of the gender vari-

8 KM treat the ranks of candidates as count data, which is why they rely on negative binomial regression in their analysis. We find this assumption problematic. Although the dependent variable is composed solely of non-negative integers, the data generation process is not in line with the assumptions made by count regression models. I.e., there is a difference between count and rank data. Moreover, the dependent variables are definitely not poisson or negative binomial distributed, which is the assumption made by negative binomial regression (Hilbe 2011). In fact, the ranks of candidates does almost follow a uniform distribution for the first fourteen ballot positions, as almost every party list consists of at least fourteen candidates. Thus, the decision to use negative binomial regression seems questionable as well.

able coefficient, it is argued that "even after controlling for individual-, district-, and party-level factors, a bias against women persists; all else equal, women are systematically listed (by parties) and ranked (by voters) lower than their male counterparts" (Kostadinova and Mikulska 2015, 8-9). While this might be true, this conclusion cannot be drawn from simply analyzing the effect of the gender variable which is interacted with several other independent variables. In this case, the effect of the gender variable only describes the effect of gender when all of the interacted independent variables equal zero, which is not possible in KM's analysis as variables such as district magnitude cannot be zero. This interpretation of the interaction effects contrasts with the advice by Brambor, Clark, and Golder (2006, 71) that "scholars should refrain from interpreting the constitutive elements of interaction terms as unconditional or average effects – they are not".

Second, the interpretation of interaction effects in non-linear models, which includes negative binomial regression, is even more challenging. As demonstrated by Ai and Norton (2003), one cannot simply interpret the sign of the interaction coefficient in order to determine the form of the interaction effect in non-linear models. Meaning that "the interaction effect [...] cannot be evaluated simply by looking at the sign, magnitude, or statistical significance of the coefficient on the interaction term when the model is nonlinear" (Ai and Norton 2003, 129), most importantly as the interaction coefficient can be of the opposite sign compared to the marginal effect. Thus, when only the regression coefficients in non-linear models are interpreted, it is almost impossible to determine whether the observed effects confirm the theoretical expectations.

Given these shortcomings in the interpretation of the regression analysis, we actually know only very little about how the gender of a candidate influences her or his nomination chances by parties and how voters evaluate candidates based on their gender. Unfortunately, these questions cannot be answered by simply improving the interpretation of the regression models in KM, since the research design suffers from a more general shortcoming. We will discuss this point in the next section.

3.3.2.2 *Dependent variables*

As described above, KM employ the regression models in order to explain the position of a candidate on the party list either before (party preference model) or after the election (voter preference model). Regression models are designed to predict values of the dependent variable based on a set of independent variables. KM use negative binomial regression in order to predict the expected rank of a candidate based on his or her gender and several other factors.[9] Put differently, KM use the predicted position of women on the ballot paper as an indicator for successful women's representation, where lower values indicate a more promising placement of women on the ballot paper.

The problem with this approach is, that we cannot draw any substantive conclusions from the predicted rank of female (or male) candidates, simply because the predicted position of women can be the result of several different distributions of women on the list. To illustrate this point, Table 3.2 provides four examples of party lists from PiS and the leftist SLD from the same elections and same electoral districts.[10] For each of these lists we display the ballot positions held by female candidates and estimate their average (i.e., predicted) ballot position, just like it would be done by a regression analysis. It is obvious that in each of the four examples, the lists of the SLD offer more favorable ballot positions to women compared to the competing PiS lists. Yet, the predicted ballot position does not reflect this. In fact, the opposite is the case: the average position of women is higher (or on par) for the lists of the SLD, falsely implying that these lists are less supportive for female candidates. The bias also becomes obvious if we compare the predicted position of men and women on the same list. For example, PiS only nominated three women in total for its ballot in district number 4 during the election of 2001. They were placed on positions 8, 9 and 13 (see row 1 in Table 3.2). This results in a predicted (average) ballot position of 10 for women. Of course, all other candidates are men, seven of which were placed at the top of the ballot. Yet, the predicted ballot

9 Of course, negative binomial regression and other poisson related regression techniques predict values on a log-scale. Yet, predicted values on the original scale are easily calculated.

10 The examples could be easily extended by including other parties and comparing lists from different districts and elections.

position for men would be 12.9 (there were 24 candidates in total on the list), and thus less favorable compared to women.

Table 3.2: Examples of bias in the predicted ballot position as indicator of successful women's representation

Party	Ballot Positions of Women											Average	Election	District #
PiS	8	9	13									10	2001	4
SLD	1	4	5	6	7	9	11	13	16	21	23	10.5	2001	4
PiS	4	7	8	13								8	2001	13
SLD	3	5	9	11	17	18	20	23	24	26		15.6	2001	13
PiS	2	8	10	12								8	2007	17
SLD	2	3	4	7	15	17						8	2007	17
PiS	11											11	2001	21
SLD	2	8	10	14	17	18	19	20	22	25		15.5	2001	21

The bias in the predicted values for women between the lists occurs due to the fact that the SLD did not just nominate more women for promising ballot positions than PiS, but also more women at lower ballot positions. As a consequence, the lower placed women increase (i.e. deteriorate) the predicted ballot position of women. An extreme example of this might be the lists for the SLD and PiS in district 21 during the 2001 election. PiS nominated only one woman, occupying position 11. In contrast, the SLD nominated ten women – three of which were placed above the eleventh ballot position, with the rest below it. As a consequence, the average position of the SLD is 15.5 and thus suggests a less promising average position of female candidates compared to PiS.

Therefore, the predicted ballot position is a strongly biased indicator of women's successful representation and not suitable for a valid analysis. The examples presented in Table 3.2 are not cherry-picked, one can find several more lists in the data which reflect this bias.[11] Consequently, KM's research design can result in misleading conclusions. Of course, the problem applies to both the party preference model and the voter preference model. We think that a different research design

11 Of course, one can also find several examples in which the average ballot position is lower for lists with more female candidates at promising ballot positions. The point is, however, that this happens more or less by chance and that the average ballot position is simply not a reliable indicator.

is necessary to evaluate women's political representation by parties in Poland. Our approach is described in the following section.

3.3.3 *Alternative Research Design*

In this section we develop an improved research design for the analysis of women's representation on party lists. We alter the party preference model as well as the voter preference model in order to get a more robust understanding of women's representation in Poland.

3.3.3.1 *Party Preference Model*

Our research design for the party preference model is based on a logistic regression, where the gender of a candidate denotes the *dependent variable*. In other words, we flip the independent and dependent variable from the KM model. That is, we *analyze the probability of a candidate to be female* as a function of party membership, ballot position, age and district magnitude.[12] To allow for a more flexible relationship between the ballot position and the probability of a female candidate, we include a squared term in the model.[13] Additionally, we let the effect of the ballot position vary by party. Our model takes the following form, which we estimate separately for all four elections with cluster corrected standard errors at the level of each district party list:

12 We focus on these variables since we consider them to be the most relevant. KM included some more variables in their analysis such as urbanization.

13 We also estimated the model without the squared term and results remained quite similar.

$$\begin{aligned}\ln\left(\frac{Pr(Female)}{1-Pr(Female)}\right) =& \beta_0 + \\ & \beta_1 * \text{Age} + \\ & \beta_2 * \text{District Magnitude} + \\ & \beta_3 * \text{Position} + \\ & \beta_4 * (\text{Position} \times \text{Position}) + \\ & \beta_5 * \text{Party} + \\ & \beta_6 * (\text{Party} \times \text{Position}) + \\ & \beta_7 * (\text{Party} \times \text{Position} \times \text{Position}) + \\ & \varepsilon \end{aligned} \tag{3.1}$$

The advantage of this approach is the possibility of a direct comparison of the probability of placing a female candidate at a more favorable ballot position between parties. In other words, we can obtain an estimated probability of each individual ballot position being held by a female candidate. From our perspective, this is the main quantity of interest when we want to analyze whether women are systematically placed at lower or higher ballot positions. Finally, the approach is in line with other studies about the determinants of nominating women to party lists (Cheng and Tavits 2011). It should be noted that this research design comes close to a replication of Table 3 in KM, which displays the proportion of women on the first five and below the fifth ballot position by each party in each election (Kostadinova and Mikulska 2015, 7). Our approach simply analyzes the expected proportion of women on each ballot position more generally.

3.3.3.2 *Voter Preference Model*

We also alter the voter preference model. First, the same problem described for the party nomination model applies here, and thus one could consider fitting a logistic regression analysis as described above, and simply exchange the ballot position by the rank of a candidate after the election. However, we chose a different approach for analyzing voter preferences, as we do not think that the rank order of candidates after an election is the best way to analyze voter preferences. In the Pol-

ish open-list PR system, each voter has to cast a vote for one candidate (Marcinkiewicz and Stegmaier 2015). Hence, the number of preference votes a candidate received can be seen as a quite accurate reflection of voter preferences. However, the final rank order of candidates is only an indirect reflection of these preferences. Most importantly, this rank order does not take into account that the distribution of votes among candidates is usually strongly skewed. Particularly, top placed candidates receive a large surplus of votes in open-list PR systems (see e.g. Faas and Schoen 2006; Lutz 2010; Marcinkiewicz 2014). The rank order of candidates does not control for these large differences in the number of votes received by candidates. Therefore, a position change from the second to the first position is weighted equally to a position change from position 21 to 20 – although in the latter case much fewer votes are usually needed to cause such a position change. In short, position changes occur much more frequently at lower (less relevant) ballot positions and the underlying differences in the number of votes between candidates might not be large enough to evaluate them as substantive.

Therefore, we think it is more accurate to analyze *the number of votes for a candidate*, instead of losing important information about voter preferences by using the final rank order of candidates.[14] Our research design relies extensively on the existing literature about candidates' electoral success in open-list PR systems. In particular, we use an approach comparable to two analyses about candidates' election results in Poland (Marcinkiewicz 2014; Marcinkiewicz and Stegmaier 2015). In these analyses, the dependent variable is defined as the proportion of votes a candidate received compared to the total number of votes which were cast for the list. Therefore, the dependent variable is computed for each candidate i on list k as:

$$\text{Proportion of Votes}_i = \frac{\text{Votes}_i}{\text{Votes}_k} \tag{3.2}$$

14 However, we conducted a small analysis based on the rank order of the candidates after the elections. For this purpose, we computed a new variable by subtracting the ballot position of a candidate from the rank of the candidate after the election. Thus, positive values indicate that a candidate improved her or his position on the list. A regression analysis with this variable as dependent variable shows positive effects for female candidates for PO, PiS and SLD of comparable magnitude in most elections. The exception is the PSL, which shows no significant effect for female candidates. The results are described in more detail in the appendix.

Taking the results of the aforementioned analyses of a candidate's electoral success in open-list PR systems into consideration, we model this variable as a function of candidate and party characteristics. The main quantity of interest in our analysis is the effect of the variable gender, which we allow to vary by party membership, election year and ballot position. In this analysis, we treat the ballot position as a *categorical* variable and compute the effect for gender at each ballot position. That is, we compare for each party at each election at each ballot position whether women received significantly more (or fewer) votes than male candidates on the same position. However, to reduce the complexity of the model and due to the fact that ballot position effects occur predominantly at top positions, we focus only on the first ten ballot positions and treat all other positions as higher than the tenth position.[15] Age, age-squared and district magnitude are included in the model as control variables. Hence, the final model we estimate for each election separately takes the following form[16]:

15 The results remain robust when every ballot position is analyzed individually, but the model becomes unnecessarily complex.

16 We estimate the model via OLS with clustered standard errors. We also considered a fractional logit model (Papke and Wooldridge 1996), which is more appropriate for analyzing proportions, in particular because OLS can result in predicted values below zero or above one. The results remain robust using the fractional logit method. Since OLS estimates are easier to interpret we report the OLS results. Less than one percent of the predicted values are below zero and even these values are very close to zero. We report the fractional logit results in the appendix to this paper.

$$
\begin{aligned}
\text{Proportion of Votes} = & \beta_0 + \\
& \beta_1 * \text{Age} + \\
& \beta_2 * (\text{Age} \times \text{Age}) + \\
& \beta_3 * \text{District Magnitude} + \\
& \beta_4 * \text{Gender} + \\
& \beta_5 * \text{Position} + \\
& \beta_6 * \text{Party} + \\
& \beta_7 * (\text{Gender} \times \text{Position}) + \\
& \beta_8 * (\text{Gender} \times \text{Party}) + \\
& \beta_9 * (\text{Party} \times \text{Position}) + \\
& \beta_{10} * (\text{Gender} \times \text{Position} \times \text{Party}) + \\
& \varepsilon
\end{aligned} \tag{3.3}
$$

This approach is comparable to previous studies in which the electoral success of candidates in open-list PR systems is analyzed (Faas and Schoen 2006; Marcinkiewicz 2014; Marcinkiewicz and Jankowski 2014; Marcinkiewicz and Stegmaier 2015). However, there are also other ways to model the observed relationship. Particularly, the approach selected in Gorecki and Kukolowicz (2014), who also analyze voter preferences in the Polish open-list PR system, is of relevance in this context. Our approach differs in two ways from that study. First, Gorecki and Kukolowicz (2014) use the absolute number of votes a candidate received as the dependent variable. In our model the dependent variable is standardized between the lists, whereas with the raw number of votes one has to control for the different number of votes cast in each district. Second, Gorecki and Kukolowicz (2014) include a wide range of additional independent variables mostly related to the political experience of candidates, but focus less on the effect of ballot positions. In this article, we put more emphasis on the role of the ballot position, which is one of the most important explanatory variables in open-list PR systems (Marcinkiewicz 2014; Marcinkiewicz and Stegmaier 2015). Despite these differences, we would like to emphasize that we acknowledge both approaches and perceive neither of them as superior. However, differences in the observed results between our analysis and the

study by Gorecki and Kukolowicz (2014) are likely due to these diverse modelling strategies.

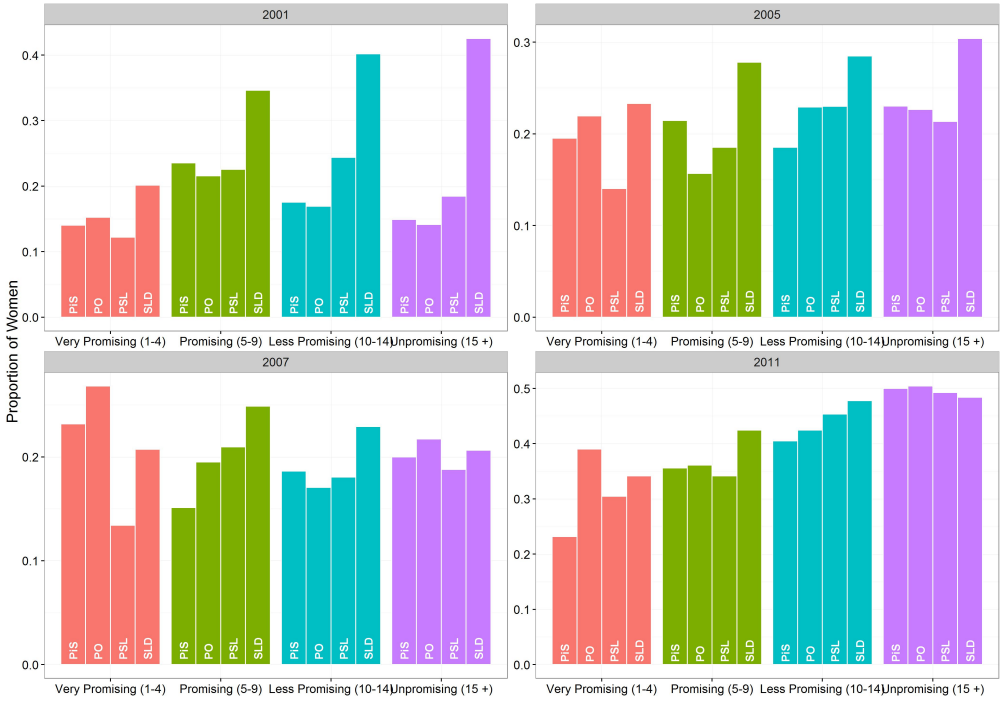
3.4 RESULTS

3.4.1 *Party Preference Model*

Before we turn to the results of the logistic regression, we present a much simpler analysis of women's nomination to promising ballot positions. We divide the ballot positions into four categories based on a candidate's chances of entering the parliament and then compute the proportion of female candidates in these categories for each party at each election. The categories are defined as follows:[17] A "very promising" position refers to the first four ballot positions. The ballot positions from the fifth to the ninth position are labeled as "promising" and ballot positions from the tenth to the fourteenth position are "less promising". All remaining ballot positions are categorized as "unpromising". The results of this analysis are presented in Figure 3.1 and clearly speak against the hypothesis that PiS is particularly fostering women's political representation by nominating them higher on the ballot paper than other parties. There is not a single category, including the unpromising ballot positions, in which PiS nominated a higher percentage of women than all of the other three parties. More importantly, PiS is most often outperformed by at least one of the more liberal parties, the PO or the SLD.

17 It is a well documented finding that higher ballot positions in open-list PR systems have higher chances of being elected to parliament (e.g. Faas and Schoen 2006; Marcinkiewicz 2014). The categorization chosen here reflects this aspect.

Figure 3.1: Proportion of Female Candidates at different Ballot Positions



We now turn to the results of the logistic regression in order to examine the determinants of female candidate nomination in more detail. The exact results can be found in the appendix. Here we summarize the findings by plotting the predicted probabilities of a candidate to be female, controlling for the election year, party membership, the ballot position and the interactions between these variables.[18] Again, the results lead to a different conclusion about the political representation of women in Poland compared to the findings presented in KM. The results of PiS are often not much different from those observed for the more liberal PO and the socially conservative PSL. However, the leftist SLD shows, at least in the elections of 2001 and 2005, a higher probability of nominating female candidates. This also holds true for favorable ballot positions, although differences to the other parties are smaller here.[19]

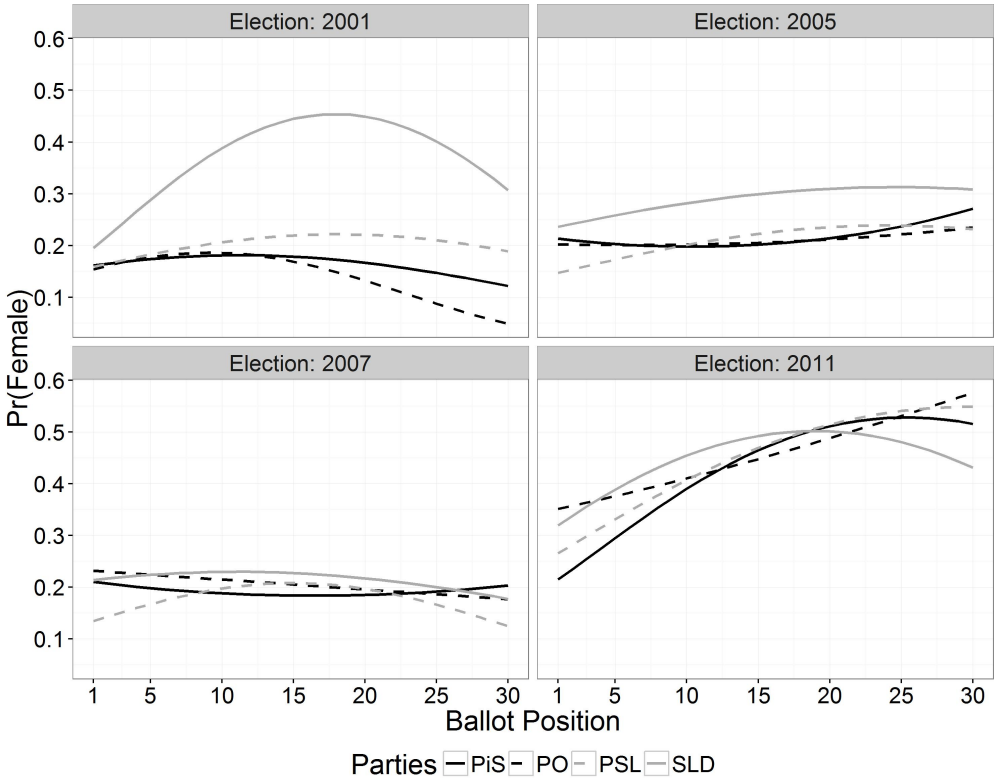
The figure also demonstrates that in the election of 2011, when parties were required to nominate at least 35% female candidates on their lists,

18 We do not display confidence intervals in order to make the plot clearer.

19 Table 3 in KM provides exact descriptive statistics of the proportion of female candidates on the first five ballot positions and the proportion of female candidates beyond the fifth ballot position.

the overall probability for female candidates to appear on the party lists rose. The probability of a candidate to be female was highest in lower (less promising) sections of the ballot paper. This indicates that all parties, irrespective of their political ideology, filled up their lists with female candidates in order to fulfill the quota.

Figure 3.2: Predicted probability of female candidates conditional on the ballot position, election year and party affiliation (party preference model)



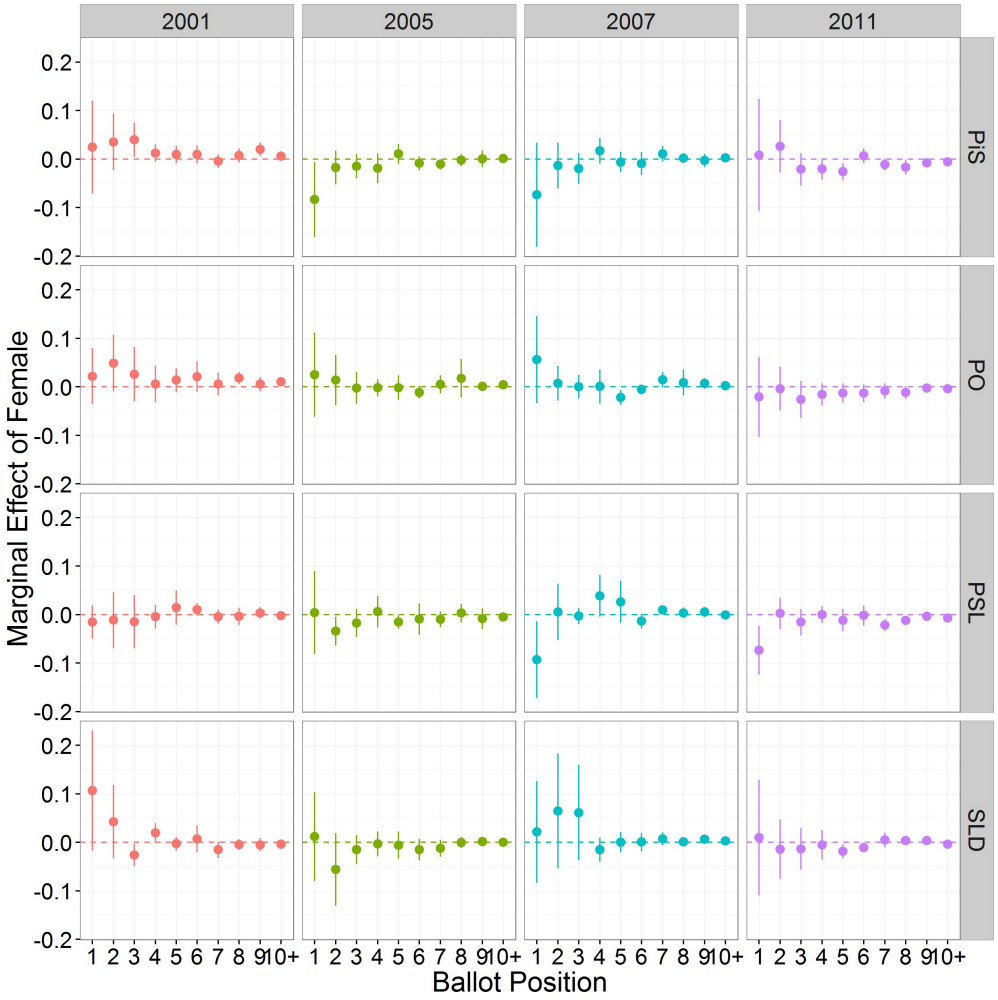
To summarize our results from these analyses, we cannot find any evidence that PiS is particularly supportive of women's political representation by nominating them more often than other parties to more promising ballot positions. Instead, the leftists SLD is the only party for which we can find substantive deviance from pattern observed for other parties. In line with the intuitive expectations, this party shows the highest probability of placing female candidates at relevant ballot positions. This finding speaks against the observation by KM that "the PiS does not differ from the leftist SLD in the positioning of women candidates" (Kostadinova and Mikulska 2015, 9). In fact, they do dif-

fer substantially at least in two elections. Of course, it should be noted that the probability for a candidate to be female is far below 0.5 for almost all ballot positions and for all parties, showing that women are generally underrepresented in Polish politics.

3.4.2 *Voter Preference Model*

The results of our voter preference model are described in the Figure 3.3. The figure displays the marginal effect for female candidates conditional on party membership, election year and ballot position. Meaning that, negative values indicate that women received fewer votes compared to men on the same ballot position and vice versa. The results are obviously close to a null result. We cannot witness any systematic differences in the electoral success between men and women for any party in all four elections. The results for PiS suggest that women at the first ballot position were evaluated more *negatively* compared to men on the first ballot position. The results for the elections of 2005 and 2007 point into this direction. Comparable effects can be observed for the conservative PSL in the elections of 2007 and 2011. In contrast, the SLD shows positive effects for women on promising ballot positions during the elections of 2001 and 2007. In general, however, we do not think that the described effects allow us to speak of systematic differences in voter preferences regarding the gender of a candidate, as the observed effects appear only in some of the elections and are not always statistically significant.

Figure 3.3: Marginal effect of female conditional on election year, party membership and ballot position (voter preference model)



The results differ slightly from the findings in Gorecki and Kukolowicz (2014), who argue that in the election of 2011 female candidates of the PiS received significantly fewer votes than their male counterparts. As described above, these discrepancies are likely caused by the differences in the employed research designs. Moreover, in our analysis, we focus on the interaction between gender and ballot positions as, typically, only candidates appearing at the top of the ballot have a realistic chance of being elected to the parliament. When we do not include this interaction and focus only on the effect of gender conditional on party membership and election year, our results are more in line with the analysis of Gorecki and Kukolowicz (2014).[20] That is, we observe

20 The results of this additional analysis are presented in the appendix.

negative effects for female candidates from all parties in the election of 2011, when the gender quota was applied for the first time.[21] This confirms the findings of Gorecki and Kukolowicz (2014) that the gender quota had a paradoxical effect on the political representation of women. On the one hand, it increased the number of women running for parliament. The average number of votes cast for a female candidate is, nevertheless, now lower, possibly due to the fact that voters who prefer to vote for women can now choose from a wider range of female candidates. We do not find significant effects for gender, regardless of party, during the elections of 2005 and 2007. For 2001, however, both the PO and PiS show positive effects for female candidates. Yet, except for the elections of 2001, neither our nor Górecki and Kukołowicz's results can confirm the findings presented by KM.

3.5 CONCLUSION

KM offer a valuable discussion of women's political representation in Poland and Bulgaria. In this comment, we demonstrated, however, that their statistical analysis of the Polish open-list PR system is inappropriate to draw substantive conclusions about party or voter preferences regarding female candidates. By using an improved research design, we came to different conclusions with regard to women's political representation in Poland. PiS does not perform better than more liberal parties in fostering women's political representation. On the contrary, the SLD nominated more female candidates compared to other parties in the elections of 2001 and 2005. Similarly, we cannot observe systematic effects of a candidate's gender when it comes to voter preferences. In each election, both men and women received a comparable proportion of votes, with only a few instances of women occupying the first ballot position. If one wants to find any pattern here, it is that top placed women on the lists of the PSL and PiS received fewer votes compared to male candidates occupying the first ballot position. Yet, as we noted above, we do not necessarily think that this finding reflects a systematic pattern regarding voter preferences against women, as it only

21 Implicitly, this is also visible in Figure 3.3 since for all parties many point-estimates are negative at each ballot position.

occurred in two of four elections, but future research might examine this aspect in more detail.

We think that the results of the voter preference model, with the exception of the negative effect at the first ballot position, are in general good news regarding the political representation of women, as they suggest that voters rely on other information shortcuts than gender when choosing a candidate. Thus, women are apparently not strongly disadvantaged by voters at the ballot box. However, this puts even more emphasis on the important role of parties when it comes to the promotion of women's political representation. Women's representation has to be fostered by political parties since they decide which candidates are placed at promising ballot positions. Therefore, parties remain the most important gate-keepers, even in candidate-centered electoral systems such as open-list PR. Consequently, future research should analyze in more detail which factors influence women's success in party nomination processes.

4

VOTING FOR LOCALS: VOTERS' INFORMATION PROCESSING STRATEGIES IN OPEN-LIST PR SYSTEMS

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ABSTRACT

While most of the literature on information shortcuts in open-list PR systems focuses on the importance of ballot position effects, the influence of a candidate's localness has widely been ignored by existing studies. In this paper, I address this research gap and argue that voting patterns in open-list PR systems are more versatile than existing research would suggest. By analyzing a special characteristic of the open-list PR system employed in the parliamentary elections of Hamburg, it is shown that a large portion of voters chooses to vote for local candidates irrespective of the ballot position of the candidate. The paper further controls for factors conditioning the effect and finds that it remains strong even after taking them into consideration. The results have important implications for the representativeness of open-list PR systems, ballot paper design, as well as for our understanding of voters' decision making process.

Keywords: open-list PR systems · personal vote · information shortcuts · residence effects

4.1 INTRODUCTION

Electoral systems are commonly differentiated with respect to the degree in which they set an incentive for candidates "to cultivate a personal vote" (Carey and Shugart 1995). The most important distinction can be drawn between closed- and open-list systems, as only the latter allows voters to cast a vote below the party level. According to Shugart (2013, 818), "this is the big way in which ballot structure makes a difference". In open-list systems, candidates from the same party compete against each other, while in closed-list systems competition is solely between different party lists. As a consequence, candidates in open-list systems have to rely on more personalized campaigning strategies to build a personal reputation and attracting enough preferential votes to be elected to parliament.

Previous research has demonstrated that candidates can rely on personal vote-earning attributes (PVEA) to secure a 'personal vote', defined by Cain, Ferejohn, and Fiorina (1987, 9) as "that portion of a candidate's electoral support which originates in his or her personal qualities, qualifications, activities, and record". Several studies analyze which strategies candidates employ in order to secure more personal votes (e.g. Bowler and Farrell 1993; Bräuninger, Brunner, and Däubler 2012). Among these strategies, Shugart, Valdini, and Suominen (2005, 438) identify the localness of a candidate as one crucial characteristic with which candidates "provide voters with substantive cues to a politician's knowledge of the needs of the locality". They find evidence that candidates are more likely to exhibit their localness under open-list PR systems compared to candidates in closed-list systems. Yet Shugart, Valdini, and Suominen (2005) only assume that localness is likely to be an influential information shortcut for voters. They do not test if localness is indeed an advantage for candidates at the ballot box.

Only few existing studies have analyzed localness effects in open-list PR systems. Tavits (2010) provided one of the first analyses of this type with a focus on Estonian elections. More recently, Put and Maddens (2015) provide an analysis of localness effects in the flexible list system of Belgium. In addition, the studies by Arzheimer and Evans (2012, 2014) and Gorecki and Marsh (2012) focus on the question of how candidate-voter distance affects candidate choice in UK and Irish

elections. All these studies come to the conclusion that localness matters (see also Campbell and Cowley 2014, for a survey experiment on the impact localness). However, of all these studies only the example of Estonia analyzed by Tavits (2010) is about open-list PR systems. In addition, scholars often rely on between candidate comparisons (e.g. Put and Maddens 2015; Tavits 2010), which is problematic as local candidates are assumed to differ from non-local candidates with respect to other characteristics as well (Gorecki and Marsh 2012).

In this paper, I analyze in more detail how the localness of a candidate affects her or his electoral success in open-list PR systems. For this purpose, I rely on a special characteristic of the open-list PR system employed in the 2015 parliamentary elections of Hamburg, in which each candidate runs for election in several urban districts. Simultaneously, the ballot paper informs voters about the urban district the candidate lives in so that candidates can directly be evaluated by voters as being local or not. This setting enables the analysis of variation in a candidate's electoral success while keeping all other candidate characteristics constant and thus increases the reliability of the results. Moreover, the case of Hamburg allows for the analysis of how voters select candidates when there are several local candidates who compete against each other. Finally, the fact that the localness of a candidate is directly visible on the ballot paper permits the comparison between the effect size of localness to other information shortcuts on which voters can rely on, including the ballot position and gender of a candidate.

The paper finds that voters rely heavily on the localness of a candidate when casting a vote. It is estimated that almost 20% of all preferential votes are cast based on the residence of candidates. Additionally, the paper shows that voters simply look for the first candidate who is local even when more candidates from the same residence are on the list. This suggests that voters actively seek local candidates on the ballot paper, and that the effects are very unlikely to be caused by personal knowledge of the candidate or local campaigning effects. Finally, the effect of a candidate's residence is several times stronger compared to other ballot paper cues such as gender or age. It is only outperformed by the effect of the first ballot position, which was already shown by existing studies to be one of the most influential factors in open-list PR systems (e.g Marcinkiewicz 2014). However, as the effect of the ballot

position tends to be highly non-linear and mostly irrelevant at lower ballot positions, the localness of a candidate can be of high relevance at lower ballot positions and thus be sufficient for a candidate to be elected to parliament when district magnitude is large.

The paper proceeds as follows. In the next section, I provide a short overview of existing studies that analyze information shortcuts with a special focus on open-list PR systems. It is shown that existing studies mainly focus on the relevance of ballot position effects. Additionally, findings regarding the localness of candidates are summarized. After briefly explaining the specific characteristics of the electoral system employed in Hamburg, hypotheses are derived and the methodological approach is outlined. The paper concludes by presenting and discussing the results.

4.2 INFORMATION SHORTCUTS IN OPEN-LIST PR SYSTEMS

Open-list PR electoral systems can be classified among the most demanding electoral systems for candidates and voters alike (Shugart 2001, 184;Farrell 2011). On the one hand, candidates have high incentives to "cultivate a personal vote" (Carey and Shugart 1995) by not only campaigning for the success of their party, but also for their own electoral success. Competition is no longer solely between the candidates of different parties, but between candidates of the same party. On the other hand, voters are confronted with a complex decision making process. They not only have to vote for a single party list, but have to select one or even more of the comparatively high number of candidates running for parliament. If voters want to cast a truly informed vote under these conditions, it would require a very high level of knowledge about each individual candidate. As previous research has shown, this assumption is very unlikely to hold true irrespective of the electoral system under consideration (Lupia and McCubbins 1998; Popkin 1993). It has been shown that virtually all voters rely on some sort of information shortcut when casting a vote (Lau and Redlawsk 2001, 2006).

Open-list systems, however, are even more likely to increase the use of information shortcuts by voters due to at least two additional factors. First, voters are faced with several different candidates from the

same party. Comparing all candidates and building a clear preference for one of them is highly demanding. Not only because of the information acquisition costs, but also because all candidates have to be compared with each other. As demonstrated by previous research, the use of information shortcuts is indeed higher when more candidates are competing against each other (Lau and Redlawsk 2006, 235). Therefore, the high number of candidates alone should increase the likelihood of voters relying on easily available heuristics. Second, in open-list systems the very influential information shortcut of party membership is only of little use for voters. This information only helps in selecting a list of candidates, but it cannot be used to differentiate between several candidates from the same list.[1] This has important consequences for the use of information shortcuts. Kam (2007), for example, has shown that voters are likely to use less reliable information shortcuts when party membership is not known. In a similar vein, Marcinkiewicz and Stegmaier (2015) observe that ballot position effects are much stronger in Poland compared to the Czech Republic, simply because the Czech open-list system allows voters to cast a vote for the party list whereas under the Polish system preferential voting for candidates is compulsory.

Existing studies analyzing information shortcuts in open-list PR systems have focused intensively on the effect of the ballot position on voters' decision making (Faas and Schoen 2006; Geys and Heyndels 2003; Lutz 2010; Marcinkiewicz 2014; Marcinkiewicz and Jankowski 2014; Marcinkiewicz and Stegmaier 2015). More specifically, these analyses have argued that it is the candidate placed first on the ballot who receives a large proportion of the votes. This observation might not be surprising, given the fact that even under less complex electoral systems, such as first-past-the-post, name order effects can be witnessed (e.g. Miller and Krosnick 1998; Miller, Krosnick, and Tichy 2004). Yet, the effect sizes under open-list PR systems are much larger, leading to a simple conclusion about electoral success in open-list PR systems: "an easy rule applies: the first will be first" (Faas and Schoen 2006, 100). Other potential shortcuts, mainly personal characteristics of the can-

1 Cutler (2002, 468) correctly notes that in systems outside of the US, partisanship is "a standing decision in and of itself rather than a shortcut used to estimate the positions of candidates, since the latter's links to policy outcomes come almost exclusively through their party".

didates, such as age or gender, are assumed to be less important for the electoral success of a candidate and are often included explicitly as control variables and show only weak effects (Marcinkiewicz 2014).[2] This paper, in contrast, argues that the localness of a candidate is an important factor which helps to explain vote choice patterns.

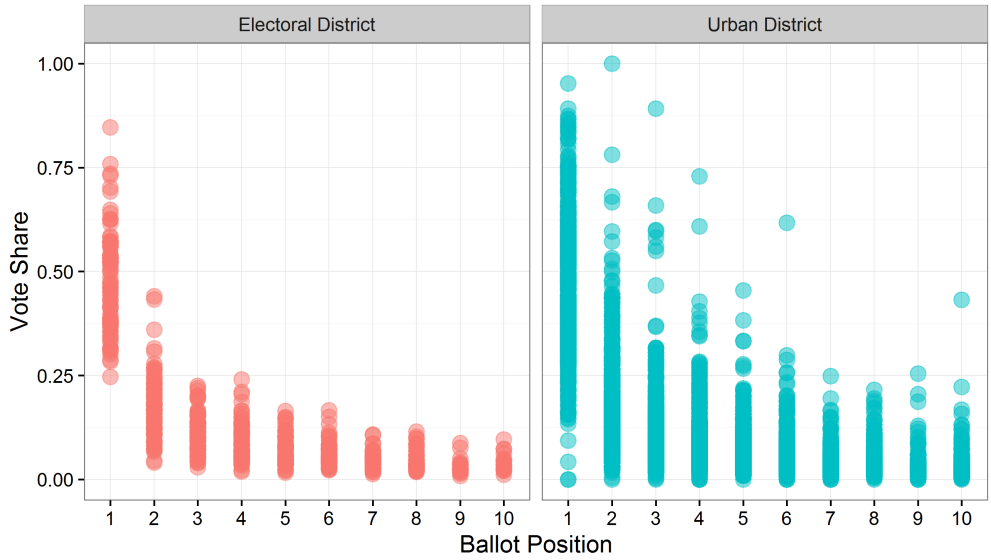
4.2.1 *The Effect of Localness*

The localness of a candidate is mostly ignored by existing studies on the electoral success of candidates in open-list PR systems. To focus on the localness of candidates is particularly interesting due to at least two reasons. First, previous studies using observational data often rely on highly aggregated election results in order to analyze the determinants of a candidate's vote share. Yet, aggregated results possibly mask heterogeneity in a candidate's electoral success at lower levels. In other words, vote choice patterns are likely more versatile at the ballot box than the often highly aggregated election results might suggest. In particular, we can expect a candidate's electoral success to vary systematically as a function of her or his residence (Gorecki and Marsh 2012). When individual data about voter's preferences is not available, these patterns are probably best observed by using disaggregated election results. Second, the strong effects observed with regard to ballot position are mostly only relevant for candidates placed at the very top of the ballot paper. While this might allow for the conclusion that the "first will be first" (Faas and Schoen 2006), this finding tells us only little about the determinants of electoral success at *lower ballot positions*. This does not mean, however, that lower ballot positions are irrelevant for being elected to parliament. In fact, the contrary is true. As parties often elect more than one candidate per electoral district, it becomes relevant which factors influence the electoral success of candidates beyond the dominating effect of the first ballot position.

2 Of course, a large corpus of literature focuses explicitly on the effects of variables such as gender in open-list systems (e.g. Gorecki and Kukolowicz 2014; Jankowski and Marcinkiewicz 2016a; McElroy and Marsh 2010). The observed effects in these analyses are often very small and the interest of these studies is not necessarily on explaining the electoral success of candidates comprehensively. Instead, these studies try to find out whether at least some voters rely on democratically problematic information shortcuts such as gender or the ethnicity of a candidate.

Both aspects, the decreasing influence of the candidate order on lower ballot positions as well as the unobserved heterogeneity in vote choice patterns are summarized in Figure 4.1, which is based on the election results in Hamburg. While the left side of the figure displays the relationship between a candidate's vote share and ballot position at the electoral district level, the right side of the figure uses the results of a candidate in the urban districts, which are nested within the electoral districts. It is obvious that the relationship between the ballot position and election results is highly non-linear and only dominating on the first positions. More importantly, the right figure clearly shows that there is a lot more variation in a candidate's electoral success at the more disaggregated level. This implies that vote choice patterns are much more heterogeneous than one would derive from the electoral district level data. The argument presented in this paper is that this variation can be explained by taking the localness of a candidate into account.

Figure 4.1: Relationship between Candidate Vote Share and Ballot Position at the level of the Electoral District (left panel) and Urban District (right panel) in the 2015 Parliamentary Elections of Hamburg



In recent years, a growing corpus of literature focused on the question what role the localness of a candidate plays in elections. These studies all share the assumption that being perceived as local candidate is an advantage and a meaningful signal for voters. This assumption is

different from earlier studies, which often rely on behavioral factors and the concept of an 'electoral connection' (Mayhew 1974). In these studies, the focus is purely on the actions taken by elected legislators in order to increase the probabilities of their reelection. Shugart, Valdini, and Suominen (2005, 438, emphasis in original), in contrast, argue that "certain attributes are not matters of home *style*, but of substance [...] While politicians can modify their behaviors if it is electorally rational for them to do so, they can do little or nothing to modify their more objective attributes". Early studies analyzing localism effects have often focused on US presidential elections and found evidence for a "home state advantage" (Lewis-Beck and Rice 1983). However, it was not until the analysis of Shugart, Valdini, and Suominen (2005) that the role of localism was discussed as an important personal vote earning attribute by candidates in open-list systems. As they show, candidates are more often 'local' in open-list PR systems with high district magnitude compared to closed-list systems. Yet, it is not shown that candidates indeed benefit from being a 'local candidate' at the ballot box.

To close this gap, some recent studies analyzed the effect of localism on a candidate's electoral success. Tavits (2010) provides the first analysis of this type for the case of national elections in Estonia, by analyzing the effect of local birthplace and local political experience on the received vote share and legislative voting behavior of candidates. The assumption is that "it is more credible for a candidate with local roots than for one without to claim to be a local servant in national decision-making [... and that] active engagement in local politics indicates that the candidate is knowledgeable about local issues and problems" (Tavits 2010, 218). From the voters' perspective, this implies that they evaluate local candidates more positively, as these candidates have more incentives to stand in for their region. These incentives can be twofold. On the one hand, local candidates are indeed more likely to be better informed about local problems and to promote potential solutions for these problems in parliament. Therefore, it can be expected that they are able to better represent the needs of the local electorate. On the other hand, voting and supporting the local candidate can also be used by voters as a means of holding the local candidate accountable. The latter is becoming particularly relevant when the solution for a local problem offered by a candidate's party

is contrary to the preferences of a candidate's voters. The findings by Tavits (2010) confirm these assumptions and show that local candidates receive a higher vote share compared to non-local candidates. Moreover, a survey-experiment based on the FPTP system of the UK further corroborates the importance of localness in candidate selection (Campbell and Cowley 2014). The experiment by Campbell and Cowley (2014, 758; emphasis in original) shows that the "impact of whether a candidate was local or not was *fifteen* times that of biological sex" and thus a highly relevant information shortcut for voters.

In a similar vein, Arzheimer and Evans (2012, 2014) analyze the effect of voter candidate distance on vote choice in British elections (Gorecki and Marsh 2012 provide a comparable analysis for Irish elections). They argue that "voters are aware of their local environment, and will assume better representation from a candidate based closer to or in that local environment, than from a candidate in an adjoining ED [electoral division] or further afield, other things being equal" (Arzheimer and Evans 2014, 2). Of particular interest for this study is the focus on the question of how voters construe distance. Arzheimer and Evans (2014) highlight that voters mostly care for the fact of whether a candidate lives within or outside of an electoral division. This implies that voters use regional entities to evaluate a candidate's localness.

4.2.2 *The Case of Hamburg and Hypotheses*

This article analyzes the effect of localness for the case of the 2015 Hamburg parliamentary elections. Hamburg is an especially interesting case as it combines several of the aforementioned factors which are expected to influence voters' use of information shortcuts. First, since the reforms of the electoral law in 2008 and 2011, Hamburg employs an open-list PR system (Marcinkiewicz and Jankowski 2014, offer a brief summary of the reform). Fifty legislators are elected on the Land level. Another 71 candidates are elected in 17 electoral districts. Both lists are open. Yet, the party list at the Land level allows voters to confirm the candidate order given by parties. I focus on the case of the electoral districts in which voting for individual candidates is compulsory. Second, although the elections receive plenty of media attention in Germany, the

attention focuses on the actions taken by parties and their prominent front runners. The party front runners, however, often do not run for election in electoral districts, but on the Land party lists. In the electoral districts, candidates are only known by highly informed voters and receive almost no media attention at all. Third and most importantly, the ballot paper in Hamburg provides voters with additional information on the candidate directly next to the name of a candidate. This information includes the age, occupation and the residence district of a candidate.[3]

It is of great importance for this article that the district provided on the ballot paper is the *urban district* in which a candidate lives. Yet, 16 of the 17 *electoral districts* consist of multiple urban districts. Put differently, each candidate runs for election in multiple urban districts which together constitute an electoral district.[4] Hence, as long as a candidate does not live outside of the electoral district, she or he can be identified by voters in one urban district as local, while she or he is not local in the remaining urban districts.[5] As information about the residence of a candidate is easily available just by reading the ballot paper, virtually all voters can take this information into account when casting a vote. Therefore, the first hypothesis reads as follows:

Hypothesis 1: *Candidates receive more votes in their district of residence.*

However, to find evidence for this hypothesis is still insufficient to demonstrate that voters actively use the residence of a candidate as an *information shortcut* from the ballot paper. In fact, it only demonstrates that candidates have an advantage in their residence district, but not how this effect was caused. Two alternative explanations for finding evidence for Hypothesis 1 stand out. First, candidates are more likely to be known in their neighborhood and thus a positive effect might simply be caused by the fact that more 'friends and neighbors' vote for the

3 A sample ballot paper is provided in the appendix to this paper.

4 It is important to stress that, while electoral districts are only relevant for the election, urban districts serve as the most important regional identification entities in Hamburg. This is obvious as each electoral district is simply named after the urban districts of which it consists.

5 Candidates are required to live in Hamburg, but they are allowed to live outside of the electoral district in which they run for parliament. The urban district in which a candidate lives is determined by the election commissioner based on the address of a candidate.

candidate. Secondly, candidates are probably more likely to campaign in close proximity to their home. Hence, another explanation might be that the effects are caused by local campaigning (Gorecki and Marsh 2012). To rule out these explanations, I utilize the fact that, on several lists, more than one candidate from each urban district runs for election. If the effects are solely caused by friends and neighborhood voting, we can expect the residence effect to be approximately the same for each candidate. In contrast, using the information provided on the ballot paper as a shortcut suggests that candidates look for the first candidate they like most and then cast a vote for this candidate (Lutz 2010; Miller and Krosnick 1998). As one can expect voters to read the ballot paper from the top to the bottom (Geys and Heyndels 2003, 161), this implies that the first *local* candidate[6] from the top of the ballot paper should disproportionately benefit from voters preferences for local candidates. This assumption constitutes the second hypothesis:[7]

Hypothesis 2: *The residence effect is stronger for the first candidate from an urban district.*

The third hypothesis deals with the number of competing candidates from the same urban district on the list. This is important as Hypothesis 2 analyzes the effect for all local candidates, irrespective of the fact whether there are one, two, three or four candidates from the same urban district on the list. It might be the case that when there is only one candidate from the urban district that this candidate receives all votes from voters who care about the localness of a candidate, but when there is a second (third, fourth) candidate, voters decide between these two (three, four) candidates without taking the position of the candidate into account. Therefore, it is important to control for the number of

6 It should be noted that the first *local* candidate is often not the first candidate on the ballot paper. The first local candidate is the first candidate from an urban district which is part of the electoral district. This implies that the first local candidate from an urban district can also be placed at a low ballot position.

7 As pointed out by one reviewer, it might be the case that the first candidate from an urban district has more financial resources for campaigning, which might generate more votes. Without information about the individual candidates I cannot control for this factor. However, I assume that it is rather unlikely that this aspect has a strong effect on the observed results, since campaigning and candidate funding is strongly correlated with the ballot position of a candidate. Below (see Hypothesis 4), I control whether the ballot position of a candidate influences the strength of the localness effect.

competing candidates from the same urban district. In general, I expect Hypothesis 2 to remain valid, but the effect for the first candidate should become weaker when the number of competing candidates increases, as at least some of the voters will compare all local candidates. Thus, Hypothesis 3 reads as follows:

Hypothesis 3: *The residence effect becomes weaker when more candidates from the same urban district compete on the same list.*

Moreover, I analyze whether the observed effects depend on the ballot position of a candidate. As demonstrated by previous research, the ballot position of a candidate is an influential factor in explaining a candidate's electoral success. There are two potential reasons why the ballot position could influence the observed residence effects. First, studies about ballot position effects often argue that the effects are caused by the psychological prominence of certain positions (Kim, Krosnick, and Casasanto 2014; Marcinkiewicz and Stegmaier 2015). If this is the case, one might expect that voters pay more attention to information provided at prominent positions and simply do not read the information at less prominent positions. Second, parties are aware of the strong influence of ballot positions and thus place their most preferred candidates at top positions (Lutz 2010). These candidates may have more support from party leaders, possess more resources for campaigning and are more prominent among voters. Both assumptions about ballot position effects suggest that the effect of localness should decrease at lower (i.e. less promising) ballot positions.

Hypothesis 4: *The residence effect becomes weaker for candidates at lower ballot positions.*

So far, all of the hypotheses dealt with the explanation of intra-candidate vote variation. That is, they answer the question of how the electoral success of a candidate varies according to her or his district of residence while keeping all other candidate characteristics constant. Yet, the quantity of interest for candidates to be elected is their received vote share at the level of the electoral district. This is important, as the observed residence effects might cancel each other out at the electoral

district level and would thus be irrelevant for the electoral success of a candidate. This would be the case when the number of voters for the party list were equal between all urban districts. Consider a party list with two candidates C_A and C_B running for election in two urban districts D_A and D_B. Candidate C_A lives in district D_A and candidate C_B lives in district D_B. When the number of voters and the effect size of localness is equal between the two districts, no localness effect can be witnessed at the aggregate level. For example, C_A receives 11 votes in D_A and C_B only 9 votes. In D_B it is vice versa. When aggregating these results both candidates received 20 votes in total. However, when the number of voters is unequal between the districts, e.g. 110 votes for C_A in district D_A and 90 votes for candidate C_B, then the localness effect can be observed at the aggregate level as C_A received 121 votes in total (55%) and C_B only 99 votes (45%). Consequently, candidates from urban districts with a comparatively high number of voters, in relation to the other urban districts within the electoral districts, should benefit more from their residence at the electoral district level (Put and Maddens 2015). The fifth hypothesis, thus, focuses on the residence effect at the level of the electoral district:

Hypothesis 5: *Candidates from an urban district with a comparatively high number of voters will have a higher electoral success at the electoral district level.*

4.3 DATA AND RESEARCH DESIGN

The empirical analysis is based on data from the 2015 parliamentary election in Hamburg. I collected the election results of all 561 candidates running for election in the 17 electoral districts at the level of each urban district, which leads to repeated observations for each candidate.[8] In total, the number of observations is 3447. The data was collected from the official election result webpage[9] using web scraping

8 Election results have only been collected for candidates of the SPD, CDU, Green Party, FDP and Linke. Most of the other parties are irrelevant in the German party system, with the exception of the newly founded righ-wing populist party 'Alternative für Deutschland'. This party, however, has nominated only very few candidates on their lists so that variation in the electoral success can often not be analyzed.

9 See http://www.wahlen-hamburg.de/wahlen.php?site=left/gebiete&wahltyp=3.

techniques implemented in the statistical software R (Munzert et al. 2015). The collected data includes the results from mail voters, which I deleted as these results are not disaggregated at the level of each urban district and local variation in vote choice patterns cannot be observed. Information about the candidates was hand coded from the ballot papers which are publicly available.[10] This includes the gender, academic title, district of residence and year of birth of a candidate.

4.3.1 *Within Candidate Analysis*

The Hypotheses 1-4 are all concerned with explaining the variation in a candidate's electoral success between the different urban districts. Consequently, the hypotheses are evaluated using a regression analysis with fixed effects for each candidate. To test Hypothesis 1, I constructed a variable T which equals one for the election result of a candidate in the urban district she or he lives in. Otherwise T is zero. The effect of T is then estimated in the following regression model[11]:

$$Y_{i,s} = \eta_i + \alpha T_{i,s} + \varepsilon_{i,s} \tag{4.1}$$

where η_i denotes the candidates fixed effects and α is the effect of interest. The dependent variable, $Y_{i,s}$, is a candidate's party list vote share at the level of each urban district. I.e., the dependent variable is computed for each candidate (i) running for election on a party list (k) in an urban district (s) as follows:

$$Y_{i,s} = \frac{\text{Votes}_{i,s}}{\text{Votes}_{k,s}} \tag{4.2}$$

To test Hypothesis 2, the variable T is replaced by the variable R, which measures the rank of a candidate among all candidates from the same urban district. This variable equals one (two, three or four) when the candidate is the first (second, third or fourth) candidate from the

10 See http://www.hamburg.de/stimmzettel-buergerschaftswahl.

11 Candidates who live outside of the electoral district are included in the regression, but they do not affect the effect size of α. In the appendix to this paper I have included the results with these candidates excluded from the analysis.

respective urban district when the party list is read from the top to the bottom. For the rare case of a candidate being the fifth or even higher candidate from the urban district, the variable also equals four due to the otherwise insufficient observations. The variable is zero for urban districts in which the candidate does not live. Hence, Hypothesis 2 is evaluated by estimating the following model:

$$Y_{i,s} = \eta_i + \gamma R_{i,s} + \varepsilon_{i,s} \tag{4.3}$$

In Table 4.1 the distributions of the variable T and R are displayed. The vast majority of candidates lives in an urban district within the electoral district (84,4%). Of all these candidates living within an urban district of the electoral system (i.e. $T = 1$), the majority of candidates is the first candidate from the urban district. However, there are enough candidates on the lists who are the second, third, or fourth candidate from an urban district in order to get meaningful estimates.

Table 4.1: Frequency of residence in electoral district and relative position from urban district

	N	%
Place of Residence (T)		
Urban District outside of Electoral District	76	13,6
Urban District inside of Electoral District	485	86,4
Relative Position of Candidates (R)		
Urban District outside of Electoral District	76	13,6
First from Urban District	265	47,2
Second from Urban District	118	21,0
Third from Urban District	57	10,2
Fourth from Urban District	45	8,0
Total	561	100

Hypotheses 3 and 4 both imply that the effect of γ should vary either according to the number of competing candidates from the same urban district on the list, or due to the ballot position of a candidate. To test for these interactions, I estimate each model separately for the different

number of competing candidates and for each ballot position, which is analytically identical to include these variables as interaction terms (Kam and Franzese 2007).[12]

In addition to the described models, I also estimated a regression with the difference between the vote share of a candidate in the resident district and the vote share outside of the district as dependent variable. That is, the dependent variable is defined as $\Delta Y_i = Y_{i,T=1} - Y_{i,T=0}$. The results of this analysis all confirm the findings by the fixed-effects regression.

4.3.2 *Electoral District Analysis*

Hypothesis 5 is tested by aggregating the voting results from the level of each urban district to the level of the electoral districts. The dependent variable is once again the vote share on the party list, but this time at the level of the electoral district. This implies that it is no longer possible to analyze the effect of localness in the quasi-experimental setting like before. Instead of analyzing the within candidate variation between urban districts, the electoral district analysis focuses on between candidate variation. These differences between candidates can be explained by a large number of factors and thus it has to be controlled for several other potential variables which can explain the vote share of a candidate. I control for the following characteristics of candidates. Most importantly, I take the ballot position of a candidate into consideration, as previous studies identified this as the most relevant heuristic employed by voters. As the effect of the ballot position is highly non-linear (Lutz 2010, see also Figure 4.1), several different research designs have been developed to control for this non-linearity. Much of this effort can be traced back to the desire of modeling the effect of the ballot position in some sort of linear relationship. For example, Faas and Schoen (2006) control with a dummy variable for the first ballot position of a candidate and additionally include a linear term for all other ballot positions. Other approaches include log-transforming the dependent variable to

12 A wide range of additional interaction effects between candidate characteristics and localness was tested in a similar way. This includes incumbency, gender, age and a PhD title. None of these interactions showed significant results. As there is no theoretical foundation why such effects should be observed, except for incumbency, I do not report them in this paper.

make the relationship more linear (Marcinkiewicz 2014; Marcinkiewicz and Stegmaier 2015).

In this article, I opt for a simpler and yet sufficient way of dealing with the non-linearity of ballot position effects; I simply include dummy variables for each ballot position. As the number of ballot positions cannot exceed ten, this results in nine dummy variables measuring the effect of not being placed on the tenth ballot position (reference category). Moreover, I control for the overall number of candidates on the list ($listlength$), as this automatically influences the vote share of a candidate (see also Tavits 2010). Age and age^2 control for a potential curve-linear relationship between the age of a candidate and the received vote share. Existing studies have demonstrated that candidates are considered to be either too young or too old by voters, so that mid-age candidates should benefit the most from their age (Marcinkiewicz 2014). Others, however, did not find evidence of such a relationship, but that younger candidates are disadvantaged compared to older and more experienced candidates (Campbell and Cowley 2014, 753–754). I also control for gender (0 = male, 1 = female) and an academic title such as a PhD (0 = no PhD, 1 = PhD / Professor). All this information can be derived directly from the ballot paper by voters and are thus alternative explanations for the received vote share of a candidate. In addition, I control for incumbency as candidates running for reelection have higher chances of being elected.

The effect of localness is analyzed in the following way. I computed a new variable (*relative size of urban district*) which measures the proportion of voters for a party list in each urban district based on all voters for the party list at the electoral district level. This variable is then multiplied with the dummy-variable T which measures whether a candidate lives in the respective urban district. As a consequence, the variable is zero for candidates who live in a district outside of the electoral district, as these candidates have no local support within the electoral district. For all other candidates, the variable equals the proportion of voters from their own urban district. The expectation expressed in Hypothesis 5 is that this variable will have a positive effect on the vote share of a candidate. Additional models are estimated by controlling for the rank of a candidate within the urban district and by interacting this variable with the relative size of the urban district. The model is estimated via

OLS with clustered-corrected standard errors at the level of each party list.[13]

4.4 RESULTS

4.4.1 *Within Candidate Variation*

Table 4.2 reports two regression models in which the effect of a candidate's residence is analyzed.[14] The first model controls for the residence of a candidate in the simplest possible manner. It shows that candidates receive an on average ten point higher vote share in their urban district compared to their results in other districts. The effect is highly significant and thus suggests that localism seems to matter for the electoral success of a candidate (Hypothesis 1). Yet, this model tells us little about the question whether the observed effects are caused by voters relying on the information provided on the ballot paper or by some other causal process, such as personal knowledge of the candidates.

The second model in Table 4.2 replaces the dummy-variable of living in the urban district with the rank of a candidate within the district. As suggested by Hypothesis 2, one can expect the first candidate from a district to benefit the most from the residence advantage as voters are more likely to vote for the first candidate they like. Model 2 completely confirms this expectation. It demonstrates that there is a large variation in the effect sizes of the residence, depending on the rank of a candidate within the district. Being the first candidate from the urban district is associated with an increase of almost 15 percent points in a candidate's list vote share. The effect is much smaller for lower placed candidates, as they only receive up to 5 percent points. However, even the effects for lower ranked candidates are significant and show that all local candidates receive at least some local bonus in their district.

13 Since the dependent variable is a proportion, a fractional logit model (Papke and Wooldridge 1996) was also estimated. The results are virtually the same. The results from this analysis are reported in the appendix.

14 All R-squared values reported for the fixed-effects regression models are the within R-squared values.

Table 4.2: OLS Regression with Candidate Fixed Effects

	(1)	(2)
In district	0.103**	
	(0.005)	
First from Urban District		0.147**
		(0.008)
Second from Urban District		0.051**
		(0.004)
Third from Urban District		0.030**
		(0.003)
Fourth from Urban District		0.025**
		(0.004)
Constant	0.134**	0.134**
	(0.001)	(0.001)
Observations	3447	3447
Adjusted R^2	0.258	0.325

Standard errors in parentheses

† $p < 0.10$, * $p < 0.05$, ** $p < 0.01$

The observed effects strongly indicate that voters are in fact looking for the *first* candidate who is local and then cast a vote for this candidate. Nonetheless, the effects observed in model 2 might still not tell us the whole story of local effects, as it does not control for the number of competing candidates from the same urban district. This means that the observed effects might depend on whether the candidate is the only candidate from an urban district, or whether there are two or even more competing candidates from the same urban district. To control for this factor, I estimate the second model four times depending on the number of competing candidates from the same urban district. The results are displayed in Table 4.3.

Again, a large variation in the effect sizes can be witnessed. Candidates who are the only candidate from their urban district show an average increase in their list vote share by almost 18 percent points. However, this effect decreases by more than six percent points when a second candidate from the same urban district is on the list, and even more when a third or fourth candidate from the same urban district is

on the list. The decrease in the effect size is lower the more candidates from the same district are on the list. Despite this decrease in the effect sizes, the observation that the first candidate from the urban district benefits the most from the residence effect still holds true. The gain in list vote share for the first candidate is approximately twice as much compared to the second candidate from the same urban district. What is more, the model with four or more candidates from the same urban district shows that the effect sizes for the second, third and fourth candidates are basically all the same. This might imply that this effect is the proportion of votes candidates received through friends and neighborhood voting and not necessarily through voters using the residence as an information shortcut. Finally, all models show a striking pattern in the total of the effect sizes. For each of the four models, the coefficients sum up to a value between 0.16 and 0.18. This could imply that the proportion of voters who rely on the localness of candidate as an information shortcut is approximately the same irrespective of the number of competing candidates from the same district.

Table 4.3: OLS Regression with Candidate Fixed Effects for different numbers of candidates from same urban district

	# Candidates from the same urban district			
	(1)	(2)	(3)	(4)
First from Urban District	0.179**	0.113**	0.097**	0.087**
	(0.012)	(0.008)	(0.016)	(0.018)
Second from Urban District		0.063**	0.044**	0.026**
		(0.006)	(0.007)	(0.004)
Third from Urban District			0.034**	0.023**
			(0.004)	(0.004)
Fourth from Urban District				0.025**
				(0.004)
Constant	0.166**	0.125**	0.115**	0.099**
	(0.001)	(0.001)	(0.001)	(0.001)
Observations	1350	808	690	599
Adjusted R^2	0.357	0.357	0.277	0.259

Standard errors in parentheses

† $p < 0.10$, * $p < 0.05$, ** $p < 0.01$

Finally, I test whether the observed effects vary based on the ballot position of a candidate. To do so, I estimate the models separately for each ballot position. The results are displayed in Table 4.4 and in Figure 4.2. It should be noted that I do not control for the overall number of candidates from the same district in this analysis due to otherwise insufficient observations.[15] Figure 4.2 shows the variation in the effect for each rank. Obviously, no interaction effect can be observed. The effects are of comparable size for all ballot positions and are similar to the effects observed without the interaction, which are displayed by the horizontal lines in the background of the figure. The strong effect sizes of localness at lower ballot position are even more impressive when compared to the average vote share of candidates at lower ballot positions outside of their district of residence. Table 4.4 reports the constant for each ballot position, which basically denotes the average vote share of candidates outside of their district of residence. While at the top ballot position the residence effect is smaller than the average vote share outside of the residence district, candidates at the second ballot position receive a vote share twice as large compared to outside of their district when being the first local candidate. This ratio rises up to five for very low ballot positions. Put differently, the average vote share for candidates outside of their urban district and at lower ballot positions is close to zero, implying that these candidates receive their votes almost exclusively in their district of residence. This implies that candidates at lower ballot positions almost only have a chance of being elected to parliament when they are the first local candidate.

15 The problem of insufficient observations appears for cases where multiple candidates from the same urban district compete against each other. Therefore, I estimated the model for each ballot position, but only for candidates who are the only local candidate on the list, i.e. without any competing candidates from the same urban district. The effects are reported in the appendix of this article. No interaction effect can be witnessed for this case.

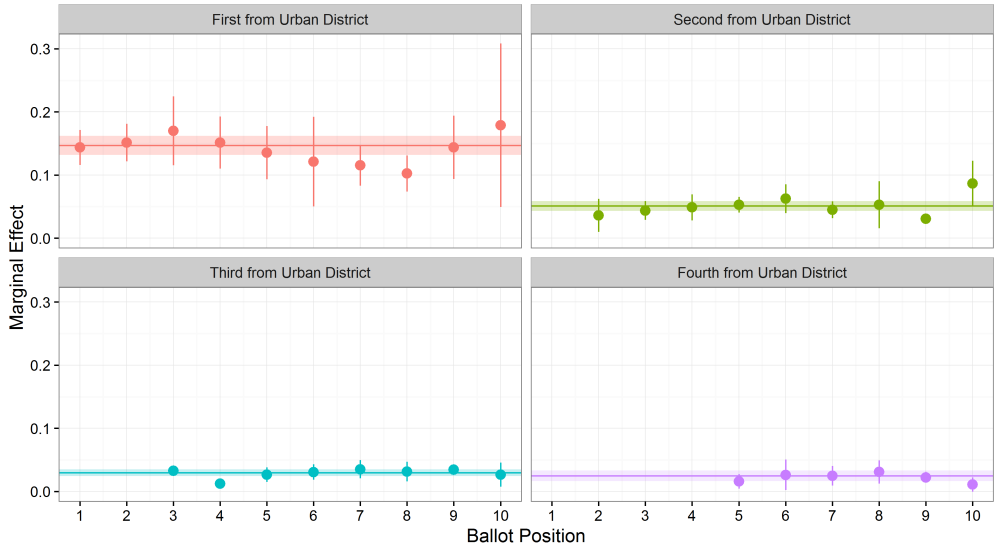
Table 4.4: OLS Regression with Candidate Fixed Effects for each Ballot Position

	Ballot Position of Candidate									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
First from Urban District	0.144**	0.151**	0.170**	0.151**	0.135**	0.121**	0.115**	0.102**	0.144**	0.179*
	(0.014)	(0.015)	(0.028)	(0.021)	(0.021)	(0.036)	(0.017)	(0.015)	(0.026)	(0.066)
Second from Urban District		0.036**	0.044**	0.049**	0.053**	0.062**	0.045**	0.053**	0.031**	0.087**
		(0.013)	(0.008)	(0.010)	(0.006)	(0.012)	(0.007)	(0.019)	(0.000)	(0.018)
Third from Urban District			0.033**	0.012**	0.027**	0.031**	0.035**	0.031**	0.035**	0.027*
			(0.004)	(0.003)	(0.006)	(0.006)	(0.007)	(0.008)	(0.004)	(0.010)
Fourth from Urban District					0.016**	0.026*	0.025**	0.031**	0.022**	0.011†
					(0.006)	(0.012)	(0.008)	(0.009)	(0.004)	(0.006)
Constant	0.448**	0.153**	0.103**	0.080**	0.065**	0.055**	0.039**	0.040**	0.025**	0.032**
	(0.002)	(0.002)	(0.002)	(0.002)	(0.001)	(0.002)	(0.001)	(0.001)	(0.001)	(0.002)
Observations	510	510	474	436	408	346	241	238	149	135
Adjusted R^2	0.227	0.328	0.358	0.404	0.468	0.341	0.642	0.466	0.716	0.578

Standard errors in parentheses

† $p < 0.10$, * $p < 0.05$, ** $p < 0.01$

Figure 4.2: Effect variation by ballot position and rank of candidate



4.4.2 *Electoral District Effects*

The previous section demonstrated that voters rely heavily on the residence of a candidate as an information shortcut in the open-list PR system of Hamburg. Candidates systematically receive more votes in their district of residence. Moreover, these effect are not only significant, but also large in magnitude. Candidates receive up to 18 percentage points

more of the list vote share in their district of residence, depending on their rank within the district and the number of competing candidates.

These results suggest that the localness of candidates is an important information shortcut and should have an impact on the overall election results at the level of the electoral district. For this reason, Table 4.5 displays the results from three 'electoral district models'. The control variables show only small effects in all three models. Having a PhD title is positively correlated with an approximately three percent points higher vote share. This effect might be caused by the fact that a PhD title is interpreted as a signal of a candidate's competence by voters (Schneider and Tepe 2011). However, it is also possible that voters think that these candidates are doctors as the German nomenclature does not allow to differentiate between a PhD and a MD title.[16] Campbell and Cowley (2014) show that doctors are preferred by voters.

Gender does not seem to be an influential shortcut. Neither is this variable significant nor does it show a strong effect. The effect of age confirms the assumption that older candidates receive a lower vote share. Furthermore, the assumption that younger candidates will also receive fewer votes is not supported by the data (see Figure 4.3 for the visualization of the effect based on model 3).[17] Incumbents receive an approximately four percent point higher vote share compared to non-incumbents.

Table 4.5 does not display the effect from the ballot position and number of candidates on the list. The effect of the ballot position is totally in line with the expectations. That is, candidates on the first ballot position have a huge advantage, while the effect strongly decreases at lower ballot positions. For example, candidates at the third ballot position only have a four percent point advantage compared to candidates placed at the tenth ballot position. Figure 4.4 visualizes the effect.

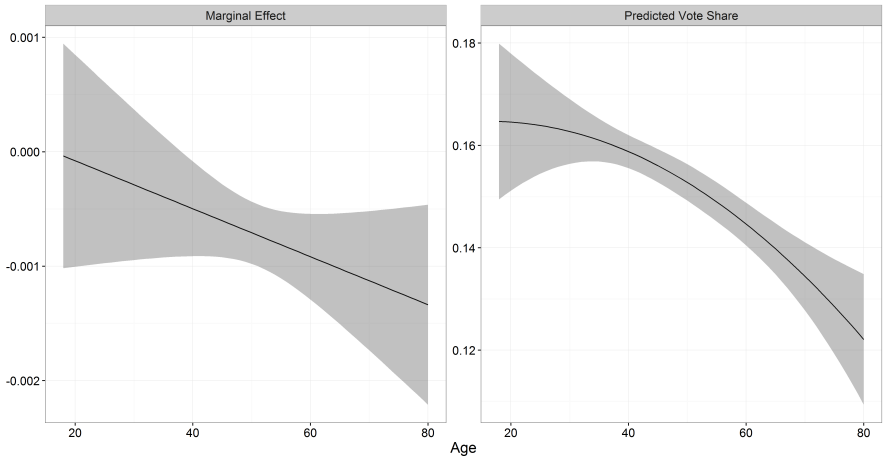
Turning to the effect of the residence related variables, we can see in the first of the three models that being a candidate from a large urban

16 Thanks to one of the reviewers for highlighting this possibility. The German nomenclature uses 'Dr.' for both, PhD and MD titles. Only a suffix, which is not displayed on the ballot paper, allows to differentiate between the academic disciplines.

17 The effects for age in Table 4.5 are all not significant. However, as demonstrated by Brambor, Clark, and Golder (2006, 70), in interaction models the marginal effect can still be significant "for substantively relevant values of Z even if all of the model parameters are insignificant". Figure 4.3 shows that this is the case for the age variables as the 95% confidence intervals do not overlap with zero for high values of age.

district has a positive effect on the electoral success of a candidate. The effect is, however, small in magnitude. This should not be surprising, as the previous analyses have demonstrated strong effect heterogeneity for the localness of a candidate which is unaccounted for by model 1. Therefore, model 2 adds the relative rank of a candidate to the regression analysis. Candidates living outside of the electoral district are the reference category. Again, it can be observed that the first candidate from an urban district on the party list receives additional votes. The effect of the relative urban district size remains unchanged. Finally, the third model analyzes whether an interaction effect between the rank and relative size of the urban district exists.[18] Figure 4.5 plots the effect of the urban district size for the first three relative positions of a candidate within the district. The interaction confirms the results observed at the urban district level. The effect of the relative district size is strongest for candidates who are the first candidate from their urban district. For candidates from very small districts the effect of being first is almost zero, but for candidates from very large districts it is almost more than 10 percent points. This means that candidates from urban districts which are of comparatively large size will benefit from the residence effect in an election in particular.

Figure 4.3: Marginal Effect and Predicted Vote Share of Candidates conditional on Age



18 The interaction effect cannot be estimated for candidates who are the fourth from their urban district due to insufficient observations.

Figure 4.4: Marginal Effect of Ballot Position (Reference Category is Ballot Position 10)

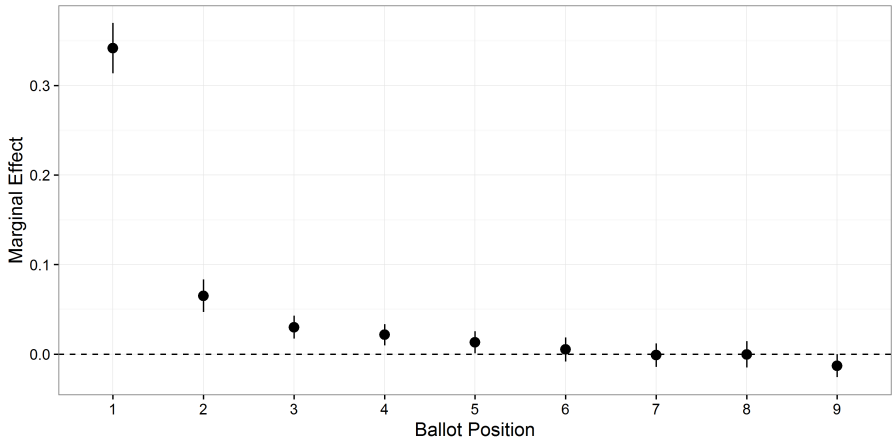
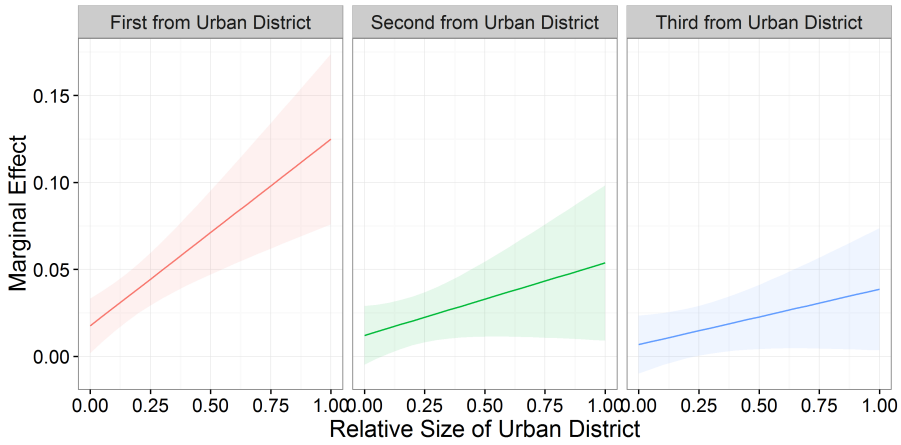


Figure 4.5: Marginal Effect of Rank within District conditional on Relative Size of Urban District



4.5 CONCLUSION

This article analyzed whether the localness of candidates matters for their electoral success. By analyzing election results from the state of Hamburg, it has been shown that candidates receive a large surplus of votes in their urban district. Hamburg offers an ideal setting for testing the effect of localness as it informs each voter about the residence of each candidate directly on the ballot paper. In addition, the open-list PR system makes it highly likely that voters rely on such information

Table 4.5: OLS Regression on Electoral District Level

	(1)	(2)	(3)
PhD Title	0.030**	0.027*	0.028*
	(0.010)	(0.011)	(0.011)
Female	0.009	0.009	0.009
	(0.006)	(0.006)	(0.006)
Incumbent	0.041**	0.042**	0.043**
	(0.011)	(0.011)	(0.011)
Age	0.000	0.000	0.000
	(0.001)	(0.001)	(0.001)
Age × Age	-0.000	-0.000	-0.000
	(0.000)	(0.000)	(0.000)
Relative Size of Urban District	0.028**	0.033**	-0.021
	(0.008)	(0.010)	(0.014)
First from Urban District		0.030**	0.018*
		(0.007)	(0.008)
Second from Urban District		0.010	0.012
		(0.007)	(0.008)
Third from Urban District		-0.001	0.007
		(0.007)	(0.008)
Fourth from Urban District		0.003	0.035**
		(0.012)	(0.013)
First from Urban District × Relative Size of Urban District			0.107**
			(0.027)
Second from Urban District × Relative Size of Urban District			0.042
			(0.026)
Third from Urban District × Relative Size of Urban District			0.032
			(0.020)
Fourth from Urban District × Relative Size of Urban District			
Constant	0.259**	0.258**	0.257**
	(0.020)	(0.020)	(0.020)
Listlength & Ballot Position FE	Yes	Yes	Yes
Observations	561	561	561
Adjusted R^2	0.894	0.899	0.901

Standard errors in parentheses

† $p < 0.10$, * $p < 0.05$, ** $p < 0.01$

when casting a vote as other influential shortcuts such as party membership are missing. The article differs from earlier studies by analyzing the variation in a candidate's electoral success without having to rely on between candidate comparisons. Moreover, the setting of Hamburg allows us to assume that almost all voters can take the localness of a candidate into account and not only some highly informed voters.

The results demonstrated that localness is indeed a crucial factor for a candidate's electoral success. These effects are most likely not the result of local campaigning or personal interaction between candidates and voters. Instead, the findings suggest that voters actively look for local candidates on the ballot paper. The observed effects are quite strong. Not only on the urban district level, but also at the level of the electoral district. Being local, therefore, can be considered a serious advantage for candidates when competing with other candidates from the same party. This finding can be further specified as it is especially the first local candidate, when the ballot paper is read from the top to the bottom, which benefits most. Compared to the effect of other information shortcuts, the localness of a candidate is often stronger than other shortcuts. The exception is the first ballot position which, as already demonstrated by previous research, dominates the election results. Beyond the first ballot position, however, localness matters and is likely to make a difference.

The results have important implications which go beyond the case of Hamburg. First, this paper demonstrated that localism matters. Voters show a strong preference for local candidates. Therefore, localism can be seen as an important personal vote earning attribute as it was assumed by Shugart, Valdini, and Suominen (2005). This implies that, in systems where the localness of a candidate is not as easily available as in Hamburg, candidates have high incentives to focus their campaigning strategies on their neighborhood. Second, the results have implications for ballot paper design. Ballot papers in open-list PR systems vary heavily with respect to the information that they provide about the candidates. As many voters are likely to use this information when choosing a candidate, it is important to evaluate which information should be provided to them on the ballot paper. As Kam (2007) has correctly argued, some information shortcuts, such as ethnicity, are democratically more problematic than others. The residence of a candidate seems less problematic, as there are good reasons to believe that local candidates are indeed better representatives for local problems. Therefore, adding information about a candidate's residence to the ballot paper is preferable when voters would otherwise select candidates based on more problematic shortcuts such as gender. Third, while the residence of a candidate is a less problematic information shortcut, this paper has

also demonstrated that candidates from larger regions have a bigger advantage compared to candidates from regions with fewer voters. This influences representation in open-list PR systems, as the composition of the corresponding parliament will be less heterogeneous and dominated by legislators from larger regions. Finally, the voting patterns observed in Hamburg deepen our understanding of voters' decision making processes in open-list PR systems. This paper demonstrated that voting patterns are more heterogeneous than commonly assumed based on the analysis of elections results at the most aggregated level. The results suggest that a large portion of voters actively reads the information provided on the ballot paper. While it is true that the first ballot position is a dominating factor in open-list PR systems, it is advisable to study other potential information shortcuts in more detail as they are likely to make a difference at lower ballot positions.

Finally, it should be noted that additional research on this topic is definitely required. Studies analyzing the effect of localness are still rare and should possibly be extended to address the question of to what degree localism matters in different elections and under different conditions. For example, this article did not analyze whether the effect of localness varies between different districts. Moreover, observational data does not allow the study of voter preferences directly. While this article relied on a series of quasi-experimental settings in order to estimate the effect of localness more accurately, the question of *how voters come to their decision* cannot be explained by this design. Therefore, laboratory experiments should be considered. While much research on voters' decision making processes already relies on laboratory experiments, only few of them consider decision making under the specific conditions of open-list systems. Additionally, none of these studies focus on the effect of a candidate's localness, probably due to the fact that inducing a localness treatment in the lab is challenging.

Part III

CANDIDATES AND PARTIES: LEFT AND RIGHT IN CONTEMPORARY POLITICS

5

THE STRUGGLE OVER IDEOLOGY: ANALYZING LEFT-RIGHT DEFINITIONS OF PARLIAMENTARY CANDIDATES USING STRUCTURAL TOPIC MODELS

Michael Jankowski · Sebastian Schneider · Markus Tepe

Working Paper

ABSTRACT

This article analyzes the factors influencing the interpretation of the ideological terms "left" and "right" among parliamentary candidates in a multi-party system. Theoretically, we contrast two different perspectives on these terms based on the spatial theory of politics and semantic approaches in the field of political theory. Three propositions are developed. First, we assume that the term "left" is more clearly defined compared to the term "right". Second, we expect party membership to have a strong impact on the interpretation of both terms. Third, intra-party heterogeneity should affect the interpretation of the two concepts. We test these propositions by employing structural topic models to open-response questions of what "left" and "right" means included in the German Candidate Campaign Survey 2013. We find that the interpretation of the term "left" is indeed more distinct and polarized between parties compared to the term "right". Mixed evidence is found for the effect of intra-party heterogeneity.

Keywords: Left · Right · Candidates · Ideology · Parties · Topic Models

5.1 INTRODUCTION

The terms "left" and "right" are certainly among the most frequently used words in politics. Colloquially, they serve as shorthand devices to express a general orientation towards political leaders, ideologies and parties (Inglehart and Sidjanski 1976, 225). Despite their frequent usage, categorizing political phenomena along "left" and "right" is inevitably prone to oversimplification and misunderstandings. Political science offers at least two ways to approach the substantive meaning of the terms "left" and "right".

First, scholars in the tradition of Hotelling (1929) and Downs (1957) tend to think about political competition in spatial terms as the strategic positioning in a single- or multi-dimensional policy space. The spatial model of politics builds on the assumption that even though citizens may have preferences across a "dizzying array of policy issues – abortion, tax rates, gun control, foreign policy – these attitudes appear to be organized by positions along a small number of latent dimensions" (Armstrong et al. 2014, 8). In this view, the terms "left" and "right" denote the endpoints of the political space.[1] Second, for scholars in political philosophy, the terms "left" and "right" are not only a device to arrange macro-ideologies on a continuum ranging from communism through socialism, liberalism, and conservatism to fascism (Freeden 2003, 79), the words themselves signify bundles of mutually defining political concepts. Political concepts are the building blocks of political ideologies. In modern political philosophy, ideologies are not seen as coherent clusters of political beliefs and goals, but more as a wide-ranging structural arrangement of mutually defining political concepts expressed through language (Freeden 2003, 52). In this view, the struggle over political ideology is a struggle over political language, whereas each ideology inhibits its own vocabulary (Freeden 2003, 45). Therefore, if political philosophers explore the meaning of "left" and "right", the focus is not on positions but rather on decoding the meaning of political language.

1 Political methodologists have made impressive progress in developing statistical techniques to extract positions on latent dimensions using various sources, such as closed survey item batteries (e.g., Poole 1998), political texts (e.g., Laver, Benoit, and Garry 2003; Slapin and Proksch 2008) or parliamentary roll-call data (e.g., Poole 2005).

In order to unfold the political concepts underlying parliamentary candidates' ideological beliefs this study applies Structural Topic Modeling (STM; Lucas et al. 2015; Roberts et al. 2014) to open-ended survey questions on the meaning of the terms "left" and "right". STM provides a unique opportunity to identify political concepts from open-ended answers in terms of common topics and to explore how the prevalence of certain topics relates to candidates' party membership and self-placement on the ideological left-right scale. Specifically, this study addresses two related research questions: First, what are the topics candidates associate with the terms "left" and "right"? Second, to which extent does party membership and intra-party heterogeneity explain the usage of different topics?

Existing research analyzing the meaning of the terms "left" and "right" primarily relies on correlation analysis of citizens' self-placement on the left-right dimension and their political beliefs obtained from closed survey questions (Ingelhart and Klingemann 1976; Kitschelt 1994, e.g.). Only few studies analyze the meaning of "left" and "right" based on open-response questions and those who do usually rely on voters' interpretation of these terms (e.g. Bauer et al. 2015; Fuchs and Klingemann 1990; Trüdinger and Bollow 2011). This study, in contrast, focuses on parliamentary candidates, and therefore uses data from the German Longitudinal Election Study (GLES) Candidate Campaign Survey (Rattinger et al. 2014). Candidates' political language is of particular interest not only because candidates may become policy makers but because of their influence on public discourse through campaign materials, speeches, interviews and talking to potential voters. Germany's political system serves as a fruitful case for this research endeavor because in multi-party systems, parties often tend to emphasize their ideological differences compared to two-party systems (see, e. g., Downs 1957, 127; Sartori 2005, 121-122). In turn, this might also intensify the conflict over the prerogative of what is "left" and "right".

The empirical findings can be summarized in three statements: First, compared to the term "right", the term "left" is associated with a set of self-contained and coherent topics. Second, party membership is a strong predictor for the interpretation of the terms "left" and "right". The term "left" is either cheered (by left wing parties) or criticized (by right wing parties), with almost no exceptions. The term "right",

in contrast, is also often negatively described not only by left parties but also by candidates from right wing parties. Third, for intra-party-heterogeneity, the patterns regarding topic proportions are rather ambiguous, but reveal interesting patters particularly for conservative and nationalist parties.

5.2 THEORY AND PROPOSITIONS

According to Mair (2007, 208), the terms "left" and "right" appear to offer both shape and sense to an otherwise complex political reality. Therefore, this section will focus, on the one hand on how people refer to these terms in order to describe positions within the political realm, on the other on how people use them to make sense of political phenomena.

5.2.1 *Shaping the Political Sphere*

Since Downs (1957), the terms "left" and "right" have been used as a modeling device to signify policy position in a single dimension policy space.[2] The analytical usage of the left-right-continuum was accompanied by an empirical, mainly survey based, research agenda on citizens' ideological orientation. There are several approaches to measure the content and understanding of ideological labels. The dominant approach is to explore correlations between subjects' self-placement on a left-right scale and their political beliefs and attitudes to make inferences about the contents of "left" and "right" (e.g., De Vries, Hakhverdian, and Lancee 2013; Freire and Kivistik 2013; Knutsen 1995).[3] These studies indicate that the left-right dimension represents some sort of a "super-issue" that correlates with political attitudes on various issues such as inequality, chance, religion, business and police (Sani and Sartori 1983, 309-310).

2 The spatial usage of the terms dates back to the French Revolution, where MPs in favor of the status quo were seated on the right and those opposing it on the left side of the French Assembly (Ingelhart and Klingemann 1976; Laponce 1981).

3 In rare occasions extraordinary methodological approaches, for instance the Q-sort method, are used (Zechmeister 2006, e.g.,).

Despite its handiness in shaping the political sphere (e.g., Benoit and Laver 2006; Mair 2007; Meer, Scheepers, and Van Deth 2009; Neundorf 2009), the idea of a single dimension policy space was criticized for the used survey instruments (see, e.g., Achen 1975; Kroh 2007) and findings on citizens' political capabilities to coherently structure their beliefs (Converse 1964). Advocates of a two-dimensional policy-space argue that the policy-space is subdivided in an economic and a social dimension (Evans, Heath, and Lalljee 1996; Heath, Evans, and Martin 1994; Kitschelt 1994). These authors, in general, use the labels "socialist" and "laissez-faire" for the economic dimension and "libertarian" and "authoritarian" for the societal dimension. Still others even put forward a three dimensional policy space including the dimensions left-right, social control, and post-materialism (Warwick 2002). Despite these ambiguities, most voters are able to locate their own political position along a left-right-dimension (Dalton 2006) and the position of parties and governments (Ingelhart and Klingemann 1976; Kitschelt 1988).[4]

To some extent, citizens' self-reported position on the left-right dimension appears to correspond with their perception of class conflict. In the class perspective, "left" is usually associated with societal change and equality while the "right" is connected with stability and inequality. Bobbio (1996) differentiates between the left and the right by saying that "left" stands for greater social equality, while "right" goes along with the acceptance of greater inequality for the sake of personal freedom (Mair 2007, 213). Yet, as Mair (2007, 213) points out, in the class perspective the left-right dimension remains unbalanced, since the term "left" is associated with a specific societal group and a broad set of political alternatives, while the term "right" is far less clearly delineated. According to Bartolini's (2000, 10) historical analysis of the class conflict, the term "left" is tied to "a specific set of ideas and political and social organizations stemming from the Industrial Revolution" and refers to programs, ideology and political values of a distinct group of primarily socialist and communist parties (Mair 2007, 213). The conceptualization of the term right, on the other hand, remains rather clouded. The "right", or what remains beyond the "left", is varied and includes secular as well as religious groups, more liberal as well as more conservative

4 Yet, the Arab world represents an remarkable exception from this overall pattern (Dalton 2006).

views. Thus, the term "right" can extent the full space that is left vacant by the "left", running the entire gamut from modern liberalism through orthodox fascism (Mair 2007, 213).

5.2.2 *Making Sense of Politics*

Scholars in the field of political philosophy are skeptical whether a simple left-right continuum is useful to structure the complexity of political ideology and political language. First, the left-right dimension is ideological by itself, since arranging political positions on continuum "serves the purpose of bestowing a moderate or, respectively, radical or even dangerous aura" to political views (Freeden 2003, 79). Second, the terms "left" and "right" are keywords of a political vocabulary that people use to make sense of the political phenomena. In this view, the terms "left" and "right" are connected to the political concepts that constitute subjects' "beliefs about the proper order of society and how it can be achieved" (Erikson and Tedin 2003, 64) - in short their political ideology.

Freeden (2003, 32) defines political ideology as "a set of ideas, beliefs, opinions and values that exhibit a recurring pattern, are held by significant groups, compete over providing and controlling plans for public policy, do so with the aims of justifying, contesting or changing the societal and political arrangement of process of a political community". According to this definition, political ideologies satisfy epistemic and existential motives in offering certainty and security as well solidarity within a group (Freeden 1996, 22-23; Jost, Federico, and Napier 2009, 309). "Left" and "right" are ideological umbrella terms that need to be relatively flexible and ambiguous. This is necessary because ideologies have to adapt to a given and to an ever changing societal context, and the content must also easily be accessible for ordinary voters who are not trained in political science or philosophy. With fully elaborated theoretical content, ideological language would again not be able to serve as a reference point for the mass electorate. On the other hand, a relatively stable core meaning must remain since without such a core, ideological labels would be rendered useless (see Freeden 1996, 77-78).

Political ideologies strive to gain support from citizens and to contest competing ideologies (Schwarzmantel 2008, 26–27). Modern political theorists view the struggle over competing ideologies as a struggle over political language and treat ideologies as linguistic and semantic products (Freeden 2003, 45). In this view, ideologies compete over the control of political language in order to gain the prerogative of interpretation (Freeden 2003, 55). This becomes most visible in times of fierce electoral competition when candidates use provocative language to misquote and discredit the political concepts of their opponents. Political candidates rely on the left-right semantics to distinguish themselves from their competitors, and to communicate with the electorate (Corbetta, Cavazza, and Roccato 2009, 623; Fuchs and Klingemann 1990, 205). According to these considerations, the exploration of political ideology has become the study of the meaning of words and combination of words that are used to express political concepts (Freeden 2003, 45).

One way to investigate the political concepts that shape the process of making sense of political phenomena is to ask voters open-ended questions on what they understand, for example as "left" and "right" and subsequently conduct qualitative content analysis on the resulting text corpus (see, e.g., Corbetta, Cavazza, and Roccato 2009; Fuchs and Klingemann 1990; Trüdinger and Bollow 2011).[5] This research shows that citizens are able to utilize ideological labels but attribute very different meanings to them (Feldman and Johnston 2014). The labels "left" and "right" are connected to four essential meanings: First, "left" and "right" are related to policy or issue positions (e. g., socialist or liberal economic policies) including means and ends (Conover and Feldman 1981, 621; Fuchs and Klingemann 1990, 215). This aspect seems to be strongly intertwined with general political values (e. g., equality or freedom) (Carmines and D'Amico 2015). Secondly, respondents connect "left" and "right" with specific political parties (Conover and Feldman 1981, 621; Fuchs and Klingemann 1990, 215), in some cases with other societal groups and organizations (e. g., trade unions). Thirdly, in some cases ideological labels refer to individual political actors (Zechmeister 2006, 153-154). Fourthly, "left" and "right" are also related to economic

5 Zuell and Scholz (2015) explore citizens willingness to answer open-ended questions on the meaning of "left" and "right".

systems in general (capitalism vs. socialism) (Fuchs and Klingemann 1990, 215; Trüdinger and Bollow 2011, 412-414).[6]

5.2.3 *Candidates' Interpretation of the Meaning of Left and Right*

In contrast to previous research using open-response questions obtained from voters (e.g. Bauer et al. 2015; Fuchs and Klingemann 1990; Trüdinger and Bollow 2011), this study explores how political candidates interpret the terms "left" and "right". Political candidates are of particular interest as they are able to discursively shape or even manipulate the meaning of political language and convey it to the electorate, be it purposefully or subconsciously. The ideological bundles and mutually defining political concepts communicated by parliamentary candidates can be seen as "anchoring" the left-right dimension and thereby arrange the options on an ideological "menu" from which members of the mass public select their voting preferences (Jost, Federico, and Napier 2009, 316). Via different channels, as for example party manifestos, public speeches, or the media, these bundles of mutually defining political concepts are transferred to the mass public (Jennings 1992, 436). On these grounds, it appears unlikely that parliamentary candidates' interpretation of the meaning of 'left" and "right" will be driven by a spatial logic in the spirit of Hotelling (1929) and Downs (1957).

Starting from the assumption that political ideology consists of wide-ranging structural arrangements of mutually defining political concepts expressed in language (Freeden 2003, 52), topic models provide a unique venue to identify the political concepts candidates attach to the terms "left" and "right". Building on Bartolini (2000, 10), we presume candidates still interpret the terms "left" and "right" on the historical and societal background of class conflict. Under this premise the term "left" is associated with a specific and well-defined set of political values and goals, while the term "right" remains more clouded. It can be associated with various political concepts ranging from liberalism, to conser-

6 Bauer et al. (2015) utilize STM on German voters response to the open-ended questions "What does 'left'/'right' mean to you?" and find that subjects' interpretation affects their self-positioning on the left-right scale, which casts doubts on the reliability and validity of the standard left-right scale.

vatism, to nationalism, or even fascism.[7] In terms of extracted topics, this should result in rather self-contained and well-distinguishable topics extracted from the text corpus on the term "left" and more fluid and less distinguishable topics extracted from the text corpus on the term "right" (Mair 2007, 213). The first proposition therefore reads as follows:

P1 (Discriminatory Power): In contrast to the term "right", the term "left" is associated with a set of self-contained and coherent set of topics.

Second, the prevalence of topics associated with the terms "left" and "right" is expected to vary systematically between candidates running for different political parties. Candidates select themselves into political parties according to their political beliefs and political socialization (Norris and Lovenduski 1995). Therefore, candidates from different parties tend to have different perceptual frameworks (Conover and Feldman 1981, 619). If ideologies are considered as linguistic and semantic products that give meaning to the terms "left" and "right", candidates from different parties will use a specific vocabulary to carry specific meanings. With some small variation in the wording, it is possible to present, for example, the concept of equality as enabling individual's full potential for the greater benefit of a society, or to present the same concept as the road to egalitarianism and expropriation. Candidates are expected to make excessive usage of these fine grained differences in wording when they were asked to explain the meaning of "left" and "right" in their own words. For a deeper understanding of candidates' interpretation, it is important to take into account not only what is said, but even more so, how it has been said. STM provides a methodological framework that allows researchers in political ideology to account for both.

Candidates' party affiliation is expected to affect the prevalence of positive and negative topics associated with the terms "left" and "right". Candidates of a right-wing party are expected to be more familiar and more empathetic towards right wing ideology and will therefore

7 Conservative parties in Germany, for example, often try to distance themselves from the label "right" because of its connection to right-wing extremism which has a special meaning due to the country's history and gained prominence with anti-migration riots after German reunification (Karapin 2002).

presents a richer and positively connoted interpretation of the term "right". The opposite is expected to happen when a left-wing candidate presents his or her interpretation of the term "right". In this case, we expect a less rich and detailed description and the use of words with mostly negative and stereotypical connotation. Thus, the second proposition states:

P2 (Between Party Differences): Candidates from a left-wing party will use positive topics to describe the term "left" and negative topics to describe the term "right". Candidates from a right-wing party will do the opposite.

Third, analogous to ideological heterogeneity among voters of the same party (Feldman and Johnston 2014), political parties are not monolithic ideological blocks but are organizations with internal ideological variation and factions. Competing ideological tendencies within parties can be captured in terms of party factions but also in terms of ideological distances between members of the same party.[8] While a larger ideological spread within a party may help to attract voters along the left-right continuum, it also bears the risk of political dispute and party split-up. For the purpose of this study, we will capture ideological differences within political parties using multiple left-right scales to account for whether a candidate considers her- or himself as a right-winger within a left party or a left-winger within a right party or anything in between. Candidates' ideological positions on the left-right dimension can thus be used to explore, in a more fine grained manner, how ideological differences affect the way in which candidates

8 To illustrate this point for the case of Germany: Within the faction of social democrats (SPD) in the German Bundestag exist three subgroups, the Seeheimer Kreis, Netzwerk Berlin and Parlamentarische Linke (Bernauer and Bräuninger 2009, 388-389). The Seeheimer Kreis is regarded as the party's conservative or right wing while Netzwerk Berlin is the reformist faction and the Parlamentarische Linke, as their name indicates, is the party's left wing. Similar divisions and within-party groupings can be found for all other major German parties, conservatives (CDU/CSU), liberals (FDP), green party (Bündnis 90/Die Grünen) and socialists (Die Linke). Little is known about faction within the emerging right-wing party Alternative für Deutschland (AfD). Albeit the nationalists slightly missed to enter the parliament in the 2013 federal election, they managed to be successful in various elections at the local, federal, and European level (Arzheimer 2015). Even though the AfD is a young party with various tendencies within the party organization, a recent analysis indicates the existence of a divide between ordo-liberals and national-conservatives within the AfD (Jankowski and Marcinkiewicz 2016a).

interpret and coin the terms "left" and "right". Theorizing the effect of intra-party differences draws on the same explanatory mechanism as presumed in P2. A candidate who considers her- or himself to be a right-winger in a right wing party is presumed to use negative topics to describe the term left more often than a fellow party member who sees her- or himself as a moderate or left-winger within a right-wing party. Again, the opposite should apply to left-wingers within a left wing party when they are asked to interpret the term right. The third proposition therefore reads as follows:

P3 (Within Party Differences): Candidates who consider themselves as right-wingers within a right party make more intensive usage of negative topics in interpreting the term "left". Candidates who consider themselves as left-wingers within a left party will do the same concerning the term "right".

5.3 DATA AND METHOD

5.3.1 *GLES Candidate Campaign Survey*

This study uses data from the German Candidate Campaign Survey (GCCS) 2013 (Rattinger et al. 2014) which is a component of the German Longitudinal Election Study (GLES). Germany is a particularly interesting case since the country experienced radical, mostly violent transformations of its political system, ranging from monarchy (1871–1918), Weimar Republic (1919-1933), to fascism (1933–1945), to democracy and socialism during the German division (1945–1949), and to a fully sovereign democracy after the German reunification (since 1990). These historical experiences leave an imprint on the national identity and they are presumed to continue shaping the political language of candidates today. What is more, Germany has a multi-party system which should foster the emphasis of ideological differences in political competition compared to two-party systems (see, e. g., Downs 1957, 127; Sartori 2005, 121-122).

The GCCS was sent to all candidates running for parliament in the 2013 elections. The analysis covers candidates from six parties: social

democrats (SPD), conservatives (CDU/CSU), liberals (FDP), greens (Bündnis 90/Die Grünen), socialists (Die Linke) and nationalists (AfD).[9] Regarding the AfD it has to be noted, that the party underwent substantial organizational and political changes since 2013. The AfD gained prominence as an anti-EU party focusing on questions regarding the European Stability Mechanism (ESM). With its new party leader, Frauke Petry, many ordo-liberal AfD members left the party in 2015, which is now advocating nationalist and anti-migration positions comparable to parties such as the FPÖ, UKIP or Front National (Jankowski and Marcinkiewicz 2016a). This ideological re-orientation of the AfD took place after the collection of the GCCS data.

Candidates were asked in two separate open-response questions to describe the meaning of the terms "left" and "right" in their own words. In general, the survey consists of more than 1,000 responses. Due to missing values on these two items the dataset contains 715 cases for the analysis of what "left" means and 700 cases for the analysis of what "right" means. Yet, these numbers still constitute a large text corpus. Classifying all responses based on human judgment would be highly time-consuming and prone to human coding error. Topic models (Grimmer and Stewart 2013) offer a methodological framework to extract topics form large text corpus automatically.

5.3.2 *Structural Topic Model*

STM is an unsupervised, mixed-membership topic modeling technique that allows for the inclusion of covariates in the calculation process (Roberts, Stewart, and Airoldi 2016). Each of these characteristics makes it an appropriate method for this study. First, using an unsupervised method is helpful as previous studies have shown that unsupervised machine-learning techniques perform better in detecting specific patterns within many documents than human coders (Grimmer and King 2011). The classification of texts to different topics is more accurate when using computer techniques, especially when the number of analyzed texts is large. Furthermore, it was shown that the STM is able to reproduce the results of analyses that used hand-coding (Roberts et

9 Candidates form the pirate party have been excluded from the analysis due to the parties irrelevance for the German party system.

al. 2014). Second, STM is a mixed-membership model. That means, it assumes that each document in the corpus belongs to more than one topic. Since the aim of this study is to identify different interpretations of what "left" and "right" mean to the candidates, respondents are expected to talk about different topics within the realm of the two items. In this regard, Roberts et al. (2014, 1075) state that "even if a category predetermined by the researcher applies to almost all responses, the topic model can find a finer distinction between them". For example, one response to the question "What does the term 'right' mean to you" in the GCCS is: "in my view: conservative, liberal, but in the media frequently: radical, xenophobic, antisemitic, and so forth".[10] It is obvious that such responses contain very different interpretations of the term 'right'. Therefore, a mixed-membership model appears more appropriate than choosing a single-membership model. Third, the advantage of the STM in comparison to the popular Latent Dirichlet Allocation (LDA; Blei, Ng, and Jordan 2003) topic modeling technique is that STM allows for the inclusion of covariates in the estimation process. This usually improves the model fit significantly (Roberts, Stewart, and Airoldi 2016) and the identification of topics is likely to be more accurate and straightforward when using STM.

These advantages of the STM (and other topic modeling techniques in general), however, should not distract researchers from the fact that STM requires to pay special attention to the interpretation of the calculated topics. Grimmer and Stewart (2013, 270) point out that:

> automated content analysis methods have demonstrated performance across a variety of substantive problems. These methods will not, however, eliminate the need for careful thought by researchers nor remove the necessity of reading texts. (...) researchers still guide the process, make modeling decisions, and interpret the output of the models. All these require the close reading of texts and thoughtful analysis by the researcher.

Following this advice, we carefully read candidates' responses and estimated structural topic models with a varying number of topics in

10 All quotes from the raw texts are translated by the authors. The original quote in German reads as follows: "eigentlich m.E.: konservativ, liberal, in Medien oft: radikal, ausländerfeindlich, antisemitisch usw.".

order to present interpretable and useful results which are consistent with the impressions from reading the texts (see Roberts et al. 2014, 1069-1070). Consequently, we found that a four-topic model yields the most useful results for the term "left" and a three-topic model for the term "right".

The STM is specified to include two covariates. The first covariate captures candidates' party membership. Each party in the sample is represented by an approximately equal number of candidates. As outlined in more detail above, party membership is presumed to be a strong predictor for the interpretation resp. topics associated with the terms "left" and "right". Party-membership is also expected to be connected with common political beliefs and common political language. We presume that party-membership reflects such ideological differences better than the self-placement on the left-right-scale, as the self-placement of candidates on the left-right-scale might be biased by different interpretations of the scale (e.g. Bauer et al. 2015).

The second covariate accounts for intra-party heterogeneity. In the GLES Candidate Campaign Survey 2013 Candidates were asked to place themselves, their own and all other parties on the left-right scale. This enables us to identify left- and right-wing candidates within parties by subtracting the position they assigned to their own party from their own position on the left-right scale. Candidates who placed themselves left from their own party have negative values and candidates from the right-wing of a party will have positive values. Due to the fact that the candidates have to place themselves as well as their own party on the same scale, we can mitigate the bias which occurs due to the different interpretations of the left-right scale. According to this coding procedure, all candidates who place themselves left to their own party are defined as left-wing, all candidate who place themselves to the right of their own party are defined as right-wing and all candidates who place themselves and their party at the same position are defined as 'center'. Roughly 50% of all candidates in the analysis fall into the center category, while the left- and right-wing categories approximately consist of 25% of the candidates. Finally, the STM is specified to include the interaction between candidates' party membership and the ideological self-positioning with their party.

Before using this specification of the STM to extract topics, we applied some standard text preparation steps to the raw text corpus (see e.g. Grimmer and Stewart 2013; Lucas et al. 2015, for more details on these steps). This includes the conversion of the text to lower case, the removal of numbers, punctuation and stop words (words that are very common in a language but without substantive meaning for the analysis, e.g. "the" or "and"). Furthermore, we stemmed the words in our text corpus which means the removal of "the endings of conjugated verbs or plural nouns" (Lucas et al. 2015, 257). Thus, stemming "reduces the complexity by mapping words that refer to the same basic concept to a single root" (Grimmer and Stewart 2013, 272). All of these steps help to increase the model fit since otherwise topics would potentially be dominated by frequently used but rather meaningless words, or quite similar words like "socialist" and "socialism" would be treated differently.

5.3.3 *Regression Model*

After evaluating the meaning of the extracted topics, regression analysis is used to test the effect of candidates' party membership and ideological self-positioning on topic propositions. The regression models have the following form:

$$\begin{aligned} T_j = &\alpha_j + \beta_j * \text{Party} + \gamma_j * \text{Intra–Party Heterogeneity} + \\ &\sigma_j * (\text{Party} \times \text{Intra-Party Heterogeneity}) + \eta_j * X + \varepsilon \end{aligned} \tag{5.1}$$

where T denotes the proportion of text for each candidate which belongs to the j-th topic. X is a vector of additional variables controlling for other factors that might influence topic prevalence. The models are estimated using OLS. Since the dependent variable is a proportion, other regression models such as a fractional logit (Papke and Wooldridge 1996) or beta regression (Paolino 2001) might also seem appropriate. Results remain unchanged when these models are employed. Since OLS estimates are easier to interpret, they are presented in this paper.

The full regression model controls for a set of socio-demographic variables which presumably influence ideological positioning and conceptualizations (Kitschelt 1994, chapter 1; Norris and Lovenduski 1995, 210-211): age (in years), gender (reference category: male), vocational training (academic, vocational, none/still studying or in training; reference category: vocational training), migration background (reference category: no), self-descripted place of residence (rural vs. urban; reference category: rural) and running in Eastern vs. Western Germany (reference category: West). With the country's reunification in 1990, a capitalist-democratic system was merged with a socialist system. These societal changes could still influence candidates perceptual framework. From East European party systems, we know that the meaning of the terms left and right is turned upside down (Mair 2007, 216-217). In these cases, the label "right" is associated with change while the label "left" with keeping the status quo. It remains an open question whether the understanding of the terms "left" and "right" differs not only for voters from East Germany (Neundorf 2009; Trüdinger and Bollow 2011) but also for candidates.

5.4 EMPIRICAL RESULTS

5.4.1 *Evaluation and Interpretation of Topics*

Starting with the topics extracted from the text corpus "left", Table 5.1 displays words that are highly associated with the four estimated topics based on their frequency and exclusivity (FREX) (Roberts et al. 2014, 1068). Please note that we chose to present only the most meaningful words. Table 5.1 also displays the most representative quote for each topic and the labels we choose to assign to different topics.[11]

The four topics extracted from the text corpus "left" can be classified into two negatively and two positively connoted topics. The first topic addresses the conflict between the individual and the state. The FREX words as well as the most representative quote clearly point into this direction. This topic is negatively connoted, meaning that most re-

11 The most representative quote can be estimated by the STM package and is thus not chosen by our own considerations.

Table 5.1: Summary of Topics for the term 'left'

Label	FREX-Words	Representative Quote	Proportion
State v. Individual (Negative)	self-responsibility, citizen, little, individual, state, left, large	'Left stands for the belief that the state is responsible for everything. There is almost no confidence in the self-reliant actions of individual citizens.'	19.94 %
Economy (Negative)	equalization, paternalism, state orthodoxy, socialist, socialism, debt, redistribution	'Redistribution, state orthodoxy, planned economy, paternalism, equality.'	26.11 %
Equal Opportunities (Positive)	human, life, equal, work, center, opportunity, good	'The human, and not the capital, is at the center of all socio-political efforts irrespective of the gender, origin, skin color etc.'	15.91 %
Social Justice & Peace (Positive)	solidarity, peace, justice, tolerance, equal opportunities, open	'Social, peaceful, just, international, cosmopolitan, solidarity.'	38.05 %

sponses criticize "left" for oppressing individual freedom. The second topic is also negatively connoted, but it focuses more on economical issues. This is expressed by words such as 'debt' and 'redistribution'. The remaining topics are both positively connoted. The topic labeled 'equal opportunities' focuses on abolishing existing inequalities between different societal groups. According to this topic, being left means that each person should have equal chances. The last topic is about what one might describe as the 'traditional' left values. It focuses on social justice, solidarity and peace. In sum, the four topics tap the economic and societal dimension of the term "left", either with positive or negative connotation. Among all four topics, the traditional left topic about social justice and peace has the highest proportion, followed by the negative economic topic.[12]

Table 5.2: Summary of Topics for the term 'right'

Label	FREX	Quote	Proportion
Freedom & Self-Responsibility (Positive)	self-responsibility, responsibility, free market, liberty, patriotism, family, value	'...The policies are rather liberal, individually orientated. All citizens are primarily responsible for themselves, support by the state is the last resort. The freedom of the individual has priority...'	28.16
Xenophobia (Negative)	racism, intolerance, nationalism, capital, german, interests, germany	'Conservatism, nationalism, sexism, homphobia, deportation, NSU, antisemitism, war, conspiracy theory, simply Germany'	34.56
Status Quo & Conservative (Mixed)	exclusion, foreclosure, bottom, national, egoism, think, redistribution	'patriotic / nationalistic, rather dismissive against foreigners and socially disadvantaged.'	37.28

STM results for the term "right" are based on a three-topic model. As part of the robustness analysis, we also estimated models with four or more topics. The extracted topics of these models, however, often

12 In contrast to previous research on German voters (Fuchs and Klingemann 1990; Trüdinger and Bollow 2011), the term "left" is no longer associated with terrorism and violence. This association was more prominent in the 1970s and 1980s when Germany was struck by left-wing terrorism (e.g., Red Army Faction).

referred to similar political concepts and were difficult to distinguish. Table 5.2 summarizes the three-topic model solution for the text corpus "right". The first topic is labeled 'freedom & self-responsibility' and it is clearly positively connoted. This topic basically connects the term "right" to a liberal perspective in which the state plays only a small role and basically guarantees civic liberties. The second topic, labeled 'xenophobia', associates the term "right" with negative political concepts such as xenophobia, racism and intolerance. It is also worth mentioning that the term 'Germany' occurs in the FREX words as well as in the most representative quote. This might be an indication that this topic is particularly prevalent in Germany due its fascist history. The interpretation of the third topic is challenging. Based on the information provided in Table 5.2, the topic partly resembles the second topic as it is also concerned with exclusion and national interests. However, the language used in this topic is more moderate. We think that, in contrast to all other models presented in this paper, the information in Table 5.2 is not sufficient to grasp the whole meaning of this topic. For example, when we look at the four most representative responses, the focus of this topic on conservative and status-quo orientated thinking becomes more obvious. The second most representative quote reads as follows: "Status quo-reasoning, focusing on the national, too business-friendly, too much focus on the principle of efficiency" and third most representative is "conservatism, remaining in the status quo, foreclosure against foreigners". Although all of these quotes sound a bit critical, they also highlight substantive differences to the second topic. Therefore, we presume that this topic covers the interpretation of right as being about conservatism and status quo-thinking, which some candidates regard as positive and others as negative concepts.

Comparing the topics extracted from the "left" and "right" text corpus provides sufficient evidence in favor of P1. While the four topics for "left" are heterogeneous but at the same time clearly distinguishable, two of the three topics for "right" show some considerable overlapping. With about 70% of the topics being (latently) negatively connoted, this shows that the majority of candidates seem to distance themselves from the label "right". Even candidates of programmatic right-wing parties are reluctant to report a strong association with the positive and mixed "right" topics.

5.4.2 *Topic Prevalence and Party Membership*

The second step of the empirical analysis is to explore the effect of party membership and a candidate's deviation from the party position on the expected proportion for each topic extracted from the "left" and "right" text corpus (see Table 5.3 and 5.4). For each topic, we estimate two regression models. The first model controls only for party membership using the AfD as the reference category. The second model additionally controls for the full set of socio-demographic factors, including the intra-party position of a candidate and the interaction of this variable with party membership.

Table 5.3 shows that, in line with P2, party membership is an important factor for explaining the prevalence of topics extracted from the "left" text corpus. Parties from the left discuss almost exclusively the two positive topics, while right-wing parties predominantly connect the term "left" to an authoritarian ideology as it is expressed in two negative topics. Concerning the full set of control variables only the East-West-dummy reaches a 10%-significance level for the topic "Equal Opportunity"- and the "Social Justice & Peace"-topic, which corresponds with previous findings on citizens understanding of "left" and "right" in East and West Germany (Trüdinger and Bollow 2011).

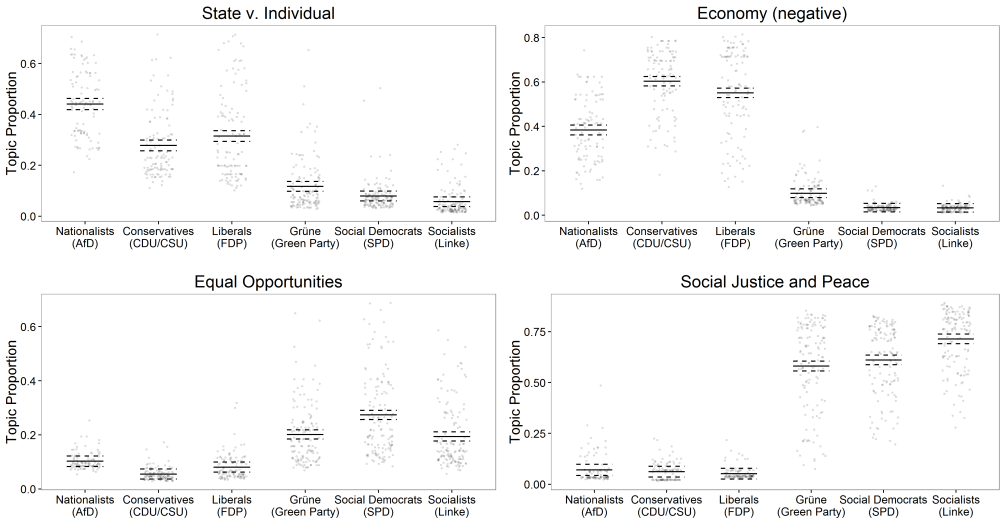
In order to evaluate the effect of party membership in more detail, we plot the results of the party-models (Model 1, 3, 5 and 7) in Figure 5.1. The socialists show the highest prevalence for the traditional left-topic ("Social Justice and Peace"). Candidates from the nationalist AfD, on the other, discuss the topic "State vs. Individual" more intensively than the topic economy. This is in line with the AfD's focus on anti-EU and anti-immigration policies compared to established right wing party that focuses on economic topics. This result not only supports the expectation that positive and negative descriptions of the term left are driven by party membership, but also highlight different emphasis of candidates in a multi-party system.

Table 5.3: Determinants of topic proportions for the term left

	State v. Ind.	State v. Ind.	Economy	Economy	Eq. Opport.	Eq. Opport.	Soc. Justice	Soc. Justice
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Conservatives (CDU/CSU)	−0.163***	−0.138***	0.219***	0.249***	−0.047***	−0.030	−0.009	−0.081**
	(0.016)	(0.033)	(0.016)	(0.032)	(0.014)	(0.030)	(0.019)	(0.038)
Liberals (FDP)	−0.126***	0.103***	0.167***	0.049	−0.022	0.010	−0.019	−0.162***
	(0.016)	(0.030)	(0.016)	(0.030)	(0.014)	(0.028)	(0.019)	(0.035)
Social Democrats (SPD)	−0.361***	−0.349***	−0.350***	−0.226***	0.171***	0.233***	0.540***	0.342***
	(0.015)	(0.028)	(0.015)	(0.027)	(0.013)	(0.025)	(0.018)	(0.032)
Greens (Grüne)	−0.324***	−0.369***	−0.285***	−0.165***	0.099***	0.018	0.510***	0.517***
	(0.015)	(0.027)	(0.015)	(0.027)	(0.013)	(0.025)	(0.019)	(0.032)
Socialists (Linke)	−0.384***	−0.396***	−0.351***	−0.236***	0.092***	0.066**	0.643***	0.566***
	(0.015)	(0.029)	(0.015)	(0.029)	(0.013)	(0.026)	(0.018)	(0.034)
Center		0.020		0.170***		−0.029		−0.161***
		(0.027)		(0.026)		(0.024)		(0.031)
Right-Wing		0.011		0.145***		−0.026		−0.130***
		(0.031)		(0.030)		(0.028)		(0.036)
Age		−0.0003		0.0001		−0.0005		0.001*
		(0.0004)		(0.0003)		(0.0003)		(0.0004)
Female		0.003		−0.012		0.006		0.003
		(0.008)		(0.008)		(0.008)		(0.010)
Residence: Urban		−0.004		0.004		−0.0004		0.001
		(0.008)		(0.008)		(0.007)		(0.009)
Education: University		0.007		−0.001		0.007		−0.014
		(0.009)		(0.009)		(0.008)		(0.010)
Education: In Training		0.019		0.001		0.014		−0.034*
		(0.016)		(0.016)		(0.015)		(0.019)
Migration Background		0.009		0.006		0.010		−0.025**
		(0.010)		(0.010)		(0.009)		(0.012)
East Germany		−0.004		0.001		−0.016*		0.018*
		(0.009)		(0.009)		(0.009)		(0.011)
Conservatives (CDU/CSU) * Center		−0.058		−0.047		−0.009		0.113**
		(0.038)		(0.038)		(0.035)		(0.044)
Liberals (FDP) * Center		−0.279***		0.167***		−0.052		0.164***
		(0.035)		(0.035)		(0.032)		(0.041)
Social Democrats (SPD) * Center		−0.028		−0.157***		−0.070**		0.255***
		(0.033)		(0.032)		(0.030)		(0.038)
Greens (Grüne) * Center		0.017		−0.175***		0.069**		0.089**
		(0.033)		(0.033)		(0.030)		(0.039)
Socialists (Linke) * Center		−0.005		−0.145***		0.060*		0.090**
		(0.034)		(0.033)		(0.031)		(0.039)
Conservatives (CDU/CSU) * Right-Wing		0.019		−0.026		−0.028		0.035
		(0.041)		(0.041)		(0.038)		(0.048)
Liberals (FDP) * Right-Wing		−0.312***		0.147***		−0.013		0.178***
		(0.042)		(0.041)		(0.038)		(0.048)
Social Democrats (SPD) * Right-Wing		0.034		−0.119***		−0.179***		0.264***
		(0.039)		(0.039)		(0.036)		(0.046)
Greens (Grüne) * Right-Wing		0.175***		−0.072*		0.198***		−0.302***
		(0.038)		(0.038)		(0.035)		(0.044)
Socialists (Linke) * Right-Wing		0.102**		−0.128***		−0.016		0.041
		(0.040)		(0.039)		(0.036)		(0.046)
Constant	0.441***	0.432***	0.385***	0.247***	0.103***	0.141***	0.072***	0.179***
	(0.011)	(0.030)	(0.011)	(0.029)	(0.010)	(0.027)	(0.014)	(0.035)
N	715	695	715	695	715	695	715	695
Adjusted R^2	0.597	0.702	0.816	0.867	0.378	0.509	0.812	0.876

Note: OLS Regression estimates with standard errors in parentheses. Significance: *p < .1; **p < .05; ***p < .01

Figure 5.1: Expected topic proportion for the term "left" based on party membership



Note: Horizontal solid lines denote average topic proportions for each party. Dashed lines display 95% confidence intervals. Grey points display the observations for each party (jitter added to points to show density).

Estimation results on the prevalence of the three topics extracted for the term "right" are presented in Table 5.4. Again, party affiliation captures a large share of the variance of topic proportions (see R^2-values). Proposition P2 stated a positive connotation of "left" among candidates from left parties, while those from right parties are expected to put forward negative topics. For the term "right", it should be the other way round. Estimation results for the conservatives (CDU/CSU) and nationalists (AfD) confirm this assumption only partially (Figure 5.2). Right wing parties show a higher proportion for the topic "Freedom and Self-Responsibility", but the amount of polarization observed for the term "left" cannot be observed for the term "right". This means that right-wing parties speak about the other topics in their responses, although to a smaller degree than the leftist parties.

Candidates from the liberal party (FDP) speak less about freedom and self-responsibility than the AfD and CDU/CSU. This is interesting since freedom and self-responsibility are fundamental values of liberal parties. However, the findings of our analysis indicate that candidates of the FDP do not necessarily think of these values as being "right". This is in line with the position of liberal parties on societal issues, where being "left" usually refers to a free and autonomous position.

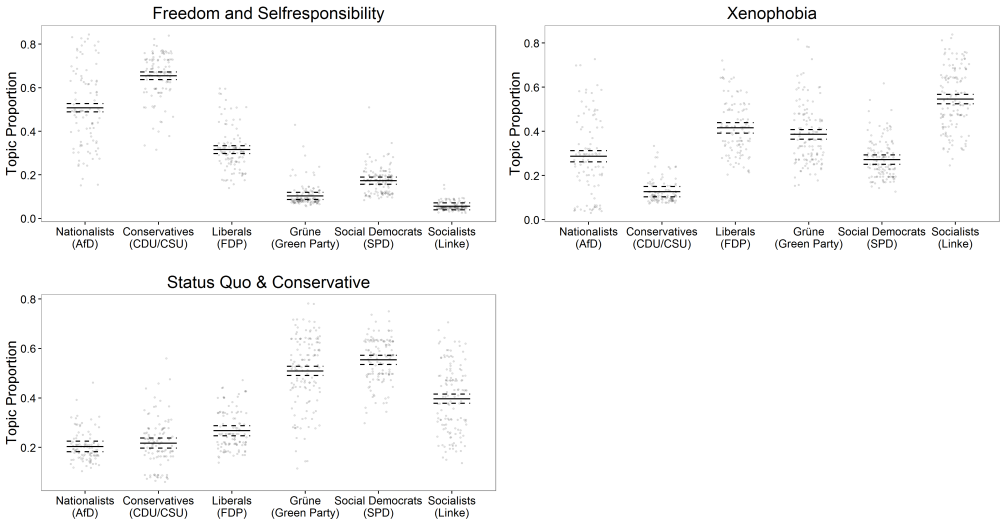
Table 5.4: Determinants of the topic proportions for the term "right"

	Freedom	Freedom	Xenophobia	Xenophobia	Status quo	Status quo
	(1)	(2)	(3)	(4)	(5)	(6)
Conservatives (CDU/CSU)	0.147***	0.441***	−0.160***	−0.330***	0.014	−0.111***
	(0.013)	(0.023)	(0.017)	(0.033)	(0.015)	(0.029)
Liberals (FDP)	−0.192***	0.056**	0.129***	−0.175***	0.064***	0.119***
	(0.013)	(0.023)	(0.018)	(0.032)	(0.015)	(0.028)
Social Democrats (SPD)	−0.335***	−0.175***	−0.015	−0.203***	0.350***	0.378***
	(0.013)	(0.020)	(0.017)	(0.029)	(0.014)	(0.025)
Greens (Grüne)	−0.405***	−0.211***	0.099***	−0.145***	0.305***	0.356***
	(0.013)	(0.020)	(0.017)	(0.028)	(0.015)	(0.025)
Socialists (Linke)	−0.452***	−0.254***	0.259***	0.126***	0.193***	0.128***
	(0.013)	(0.021)	(0.017)	(0.030)	(0.014)	(0.027)
Center		0.198***		−0.208***		0.010
		(0.020)		(0.028)		(0.024)
Right-Wing		0.439***		−0.457***		0.018
		(0.023)		(0.032)		(0.029)
Age		−0.0001		0.00004		0.0001
		(0.0003)		(0.0004)		(0.0003)
Female		−0.001		−0.007		0.008
		(0.006)		(0.009)		(0.008)
Residence: Urban		−0.001		0.002		−0.002
		(0.006)		(0.008)		(0.007)
Education: University		−0.005		0.0003		0.005
		(0.006)		(0.009)		(0.008)
Education: In Training		−0.022*		0.019		0.003
		(0.012)		(0.017)		(0.015)
Migration Background		0.011		−0.015		0.005
		(0.007)		(0.011)		(0.009)
East Germany		0.004		−0.003		−0.001
		(0.007)		(0.010)		(0.009)
Conservatives (CDU/CSU) * Center		−0.249***		0.130***		0.120***
		(0.028)		(0.039)		(0.034)
Liberals (FDP) * Center		−0.224***		0.296***		−0.073**
		(0.027)		(0.037)		(0.033)
Social Democrats (SPD) * Center		−0.121***		0.138***		−0.017
		(0.024)		(0.034)		(0.030)
Greens (Grüne) * Center		−0.187***		0.186***		0.002
		(0.025)		(0.035)		(0.031)
Socialists (Linke) * Center		−0.188***		0.051		0.137***
		(0.025)		(0.035)		(0.031)
Conservatives (CDU/CSU) * Right-Wing		−0.579***		0.408***		0.171***
		(0.030)		(0.042)		(0.038)
Liberals (FDP) * Right-Wing		−0.531***		0.605***		−0.074*
		(0.032)		(0.044)		(0.039)
Social Democrats (SPD) * Right-Wing		−0.346***		0.442***		−0.096***
		(0.029)		(0.041)		(0.037)
Greens (Grüne) * Right-Wing		−0.375***		0.600***		−0.225***
		(0.029)		(0.040)		(0.036)
Socialists (Linke) * Right-Wing		−0.402***		0.441***		−0.039
		(0.030)		(0.042)		(0.037)
Constant	0.508***	0.304***	0.287***	0.510***	0.204***	0.186***
	(0.010)	(0.022)	(0.013)	(0.031)	(0.011)	(0.027)
N	700	680	700	680	700	680
Adjusted R^2	0.839	0.909	0.527	0.697	0.619	0.740

Note: OLS Regression estimates with standard errors in parentheses. Significance: *p < .1; **p < .05; ***p < .01

This finding regarding candidates from the liberal party is further corroborated by the high prevalence of the topic "xenophobic", indicating the term "right" is associated with a narrow nationalist and xenophobic world view. Candidates from the liberal party discuss this topic even more frequently than candidates from the green and social democratic party.

Figure 5.2: Expected topic proportion for the term "right" based on party membership



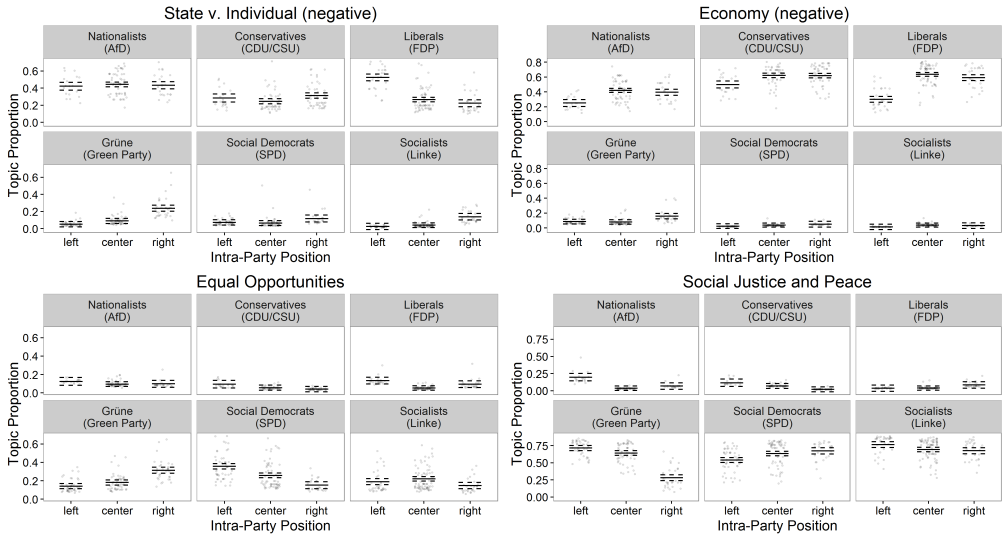
Note: Horizontal solid lines denote average topic proportions for each party. Dashed lines display 95% confidence intervals. Grey points display the observations for each party (jitter added to points to show density).

5.4.3 *Topic Prevalence and Intra-Party Heterogeneity*

In order to account for intra-party heterogeneity (P3), we included interaction terms between party membership and intra-party deviation (see Models 2,4,6,8 in Table 5.3 and Models 2,4,6 in Table 5.4). The regression models indicate that intra-party heterogeneity matters, as most of the interaction effects are significant and a substantial increase in the model fit for all models are indicated by R^2-values. Results of the interactions are visualized by plotting the predicted topic proportion for each party faction in Figure 5.3 and Figure 5.4.

With regard to topics extracted for the term "left" (Figure 5.3), we observe interaction effects only for the right-wing parties for the nega-

Figure 5.3: Expected topic proportion for the term "left" based on party membership and intra-party heterogeneity

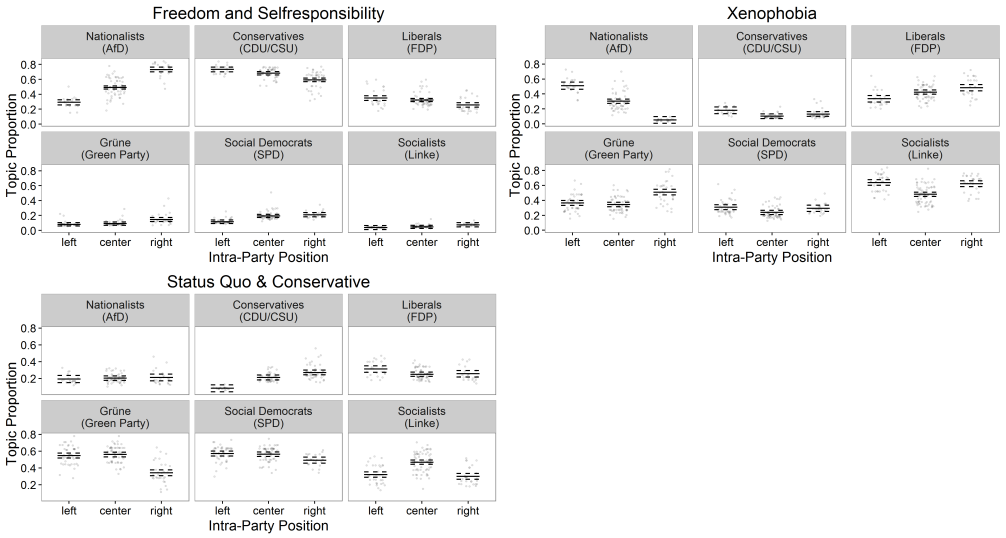


Note: Horizontal solid lines denote average topic proportions based on intra-party position. Dashed lines display 95% confidence intervals. Grey points display the observations for each faction (jitter added to points to show density).

tive topics and for left-wing parties only for the positive topics. Right-wing parties simply do not speak positively about the term "left" and left-wing parties do not speak negatively about the term "left", irrespective of the left-right placement of a candidate within their party. Two of the observed interaction effects stand out. First, left-wing candidates within the liberal party seem to put more emphasis on the topic "State vs. Individual" and discuss the economical dimension less frequently. This makes sense given the fact that left-leaning candidates within the liberal party emphasize civic liberties, while right-wingers within the liberal party focus on neo-liberal economic reforms. This is also reflected by the economic topic where the liberal left-wingers show the lowest average estimated proportion. For the two other right-wing parties we can also observe a small interaction effect for the negative economy topic. For the nationalist AfD as well as the conservative CDU right-wing candidates seem to speak more about this topic compared to left-wing candidates. The effects are, however, rather small in magnitude. Second, within the Green party the right-wingers differ notably from their left-winger and center colleagues on the topic "Social Justice and Peace". This finding is congruent with their slightly higher usage

of the topic "Equal Opportunities". All in all, this might hint at an orientation towards post-materialist middle-class voters among the Green Party's right wing. Reflecting on our proposition P3, which expected right-leaning candidates within right-wing parties to speak more negatively about the term "left", our results find some evidence for the topic about the economy. There is, however, no overall consistent pattern with regard to all topics. Instead, our results indicate that all candidates from a right-wing party describe the term "left" negatively. What we observe is that right-wing candidates tend to criticize the left more frequently for economic policies, while particularly left-wing liberals focus on the role of the individual.

Figure 5.4: Expected topic proportion for the term "right" based on party membership and intra-party heterogeneity



Note: Horizontal solid lines denote average topic proportions based on intra-party position. Dashed lines display 95% confidence intervals. Grey points display the observations for each faction (jitter added to points to show density).

The results of the interaction for topics extracted from the text corpus "right" are displayed in Figure 5.4. The observed effects are particularly interesting because the interaction effect has opposite directions for the nationalist AfD compared to the conservatives (CDU/CSU) and liberals (FDP). For the AfD, we can see that right-wing candidates are almost exclusively talking positively about the term right (average topic prevalence of 73%), while this proportion is substantively smaller for center (49%) and left-wing candidates (29%) of the AfD. For the conservatives

(CDU/CSU) and to a small extent also for the liberal party, we observe the opposite. Here, left-wing candidates speak to a similar amount about the positive topic as right-wing AfD candidates. However, right-wing conservative candidates speak less about "right" in positive terms. Instead, these candidates put more emphasis on the conservative topic. This indicates that right-wing candidates of the conservatives underline the importance of conservative values for their position.

These patterns of intra-party heterogeneity observed for the conservative (CDU/CSU) and to a lesser extent also for the liberals (FDP) contrast with our proposition P3. We expected that right-wing members of these parties will show patterns comparable to those observed for the nationalists (AfD). However, the observed patterns can be explained by the different incentives to circumvent oneself from the extreme right. The CDU/CSU is probably the most established party in the German party system and right-wing candidates within this party will have to confine their position from the extreme right. They are thus less likely to speak *almost exclusively* positively about the term "right". In contrast, the AfD is a populist party with a high degree of intra-party heterogeneity. As it can be seen from recent developments within the AfD, the right-wing of the AfD is less reluctant to advance a positive identification with the term "right". In contrast, and in particular back in 2013, the moderate members of the AfD tried not to present the party as particular right. Therefore, these candidates obviously connect the term "right" more to a more radical and negative understanding from which they can distinguish themselves. This is exactly what we can see in Figure 5.4. On average, more than 50% of the text from AfD's left-wing candidates falls into the 'xenophobia'-topic, while the average proportion for AfD's right-wing candidates for this topic is 5%. Thus, although the results are not directly in line with the our assumption expressed in proposition P3, the analysis still revealed substantial differences between candidates of the same party.

5.5 DISCUSSION AND CONCLUSIONS

"Left" and "right" are probably the most widely used terms to structure the political sphere, in public as well as scholarly discourse. Albeit

their abundant usage, the meaning of these terms is often unclear and contested. For example, some interpret "left" as socialist, others as libertarian; some interpret "right" as conservative or economically liberal while others relate the term to racism and fascism. As shown in this article, parliamentary candidates are no exception to this picture. Applying STM (Lucas et al. 2015; Roberts et al. 2014) to open-ended survey questions on the meaning of the terms "left" and "right" obtained from the GLES Candidate Campaign Survey (Rattinger et al. 2014), this study unfolds the multiple political concepts underlying respondents construction of their ideological views. Contrary to previous research on the meaning of the terms "left" and "right", this study focused on candidates instead of citizens, since candidates are most likely to shape public discourses by using ideological language.

The main findings of this article can be summarized as follows. First, in line with proposition P1, the term "left" is defined very precisely by candidates. The STM extracted four well distinguishable topics, two negatively and two positively connoted. In contrast, for the term "right" the STM reveals three topics, one positively and two negatively connoted. What is more, the latter are partly overlapping. Since more than 70% of the responses tap the negatively connoted topics, this hints at a more distanced position to the term among German parliamentary candidates which presumably is a consequence of the country's past, but also xenophobic attacks since German reunification.

Second, in line with P2, party membership is an important factor for explaining topic prevalence. In particular for the term "left", party membership is a very strong predictor for how a candidate will answer the question of what this term means to her or him. We also find that the term "left" is more polarized, meaning that left parties speak exclusively positively about it and right-wing parties almost only negatively. For the term "right", there exists more agreement between candidates of different parties. Nevertheless, differences between the left and the right party-block can be found for most of the topics, despite not being too pronounced and some parties showing surprising results.

Third, the precision of the term "left" is further corroborated by the small substantial relevance of interaction effects with regard to intra-party heterogeneity. As described above, our results often provide only little evidence in favor of our proposition P3. However, the observed in-

teraction effects corroborate our interpretation that the meaning of the term "left" is very settled and thus less subject to individual interpretations (Mair 2007, 213). Again, this picture is very different for the term "right". Here, large variations between members of the same party are observed, in particular with respect to right-wing parties. The degree of self-identification with the term right seems to be particularly important and is different between candidates from a emerging nationalistic populist party and an established conservative party.

In contrast to scholars in the tradition of Hotelling (1929) and Downs (1957), who consider the terms "left" and "right" as a modeling device, this study indicates that candidates' understanding is in fact multidimensional. At first glance, this supports the semantic approach of political theorists who consider ideologies as bundles of mutually defining political concepts competing for the prerogative over political language, in particular about what is "left" and "right" (Freeden 2003). However, it should be noted that these approaches pursue different analytical purposes and utilize different sorts of data. While the spatial school tries to establish objective ideological dimensions, political theorists are interested in subjective perspectives. In combination, they allow to capture ideological conceptualizations more comprehensively, especially because both perspectives are presumably highly correlated. The spatial theory, for example, offers a nice explanation for our finding that candidates from the liberal party are critical of both terms. Liberal parties combine economic attitudes associated with the right with societal attitudes from the left. Hence, liberal candidates are probably more reluctant to clearly identify themselves with one of these two concepts.

In methodological terms, the article seeks to demonstrate the potential of quantitative text analysis for the study of political ideology. While existing approaches exploring the meaning of "left" and "right" tend to rely on the self-placement of candidates on the left-right-scale, which is by definition one-dimensional, this study has demonstrated that open-response questions in combination with topic models provide a fruitful toolkit for analyzing the political concepts underlying the interpretation of "left" and "right" in more detail. In comparison to studies using hand-coded open-ended survey responses, STM saves time and personnel resources.

In general, our findings should conciliate critics of automated content analysis. Nevertheless, some shortcomings should be discussed: First, inferences on real world-consequences of these conceptualizations are, of course, possible with neither of both approaches. At the extreme, candidates might use a completely different ideological language in public appearances. However, we are confident that respondents answered the questionnaire in their role as politicians and therefore noted the understanding of "left" and "right" they use in their daily routines. Second, as with almost every other quantitative text analysis method, the STM approach ignores the syntactic structure of the text corpus. Hence, for an in-depth investigation, a qualitative analysis for a sample of representative answers might be a valuable addition. What is more, an automated linguistic analysis of unobtrusive data (e.g., speeches, party manifestos, political talk shows, campaign material) provides opportunities to cross-check our findings.

Finally, our analysis highlights the potential for future research on this topic. Our study relied on data from a single election. It thus seems only natural to extend the scope of this study to other countries and more elections. However, this depends on data availability and currently the number of surveys which include similar questions is limited. However, with more surveys including open-response questions, the scope of the analysis could be significantly broadened and would also allow to assess how much our results are driven by the impact of the German history. In a similar way, the differences between Eastern and Western European countries or between multi- and two-party systems could be assessed. Even though cross-country comparisons are challenging due to different languages, STM seems to perform well on translated texts (Lucas et al. 2015). With more data from different time points it would also become possible to analyze how stable the interpretations of "left" and "right" are, and how much they are driven by societal and historical circumstances that lead to "affective understanding" that need to be separated from generalizable elements of political ideology (e. g., general values, ideologies; see Fuchs and Klingemann (1990, 217)).

Another factor which is only covered indirectly by this study is the similarity between candidates and voters in interpreting "left" and "right". Comparing our results to similar approaches by e.g. Bauer et al. (2015),

we can find substantial differences between their analysis of voters' interpretations of these terms in Germany and the results presented in our paper. Most importantly, voters seem to think of ideological terms more often based on party cues and only to a smaller extent based on political concepts. Therefore, assessing which factors influence voter-candidate congruence in the interpretation of "left" and "right" appears to be another important research question.

6

IDEOLOGICAL ALTERNATIVE? ANALYZING AFD CANDIDATES' IDEAL POINTS VIA BLACK BOX SCALING

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ABSTRACT

This study applies black box scaling to the German Longitudinal Election Study candidate survey 2013 to shed light on an emerging right-wing party in Germany, the *Alternative für Deutschland* (AfD). The scaling procedure extracts two meaningful and robust ideological dimensions described as socialism versus liberalism and libertarian versus authoritarian. Placing the ideal point of candidates from all parties into this two-dimensional space shows that AfD candidates are significantly more market liberal than Christian Democratic Union candidates but not more authoritarian. On these grounds, the AfD can hardly be regarded as a right-wing extremist party. Yet exploring ideological heterogeneity within parties indicates that East German AfD candidates are generally more authoritarian than their West German colleagues, highlighting a potential source of the party's recent shift from primarily Eurosceptic toward more nationalist conservative positions.

Keywords: AfD · black box scaling · candidate survey · ideology · intra-party heterogeneity

6.1 INTRODUCTION

With its anti-European and anti-immigration rhetoric the Alternative für Deutschland (AfD) has become the most successful emerging party in Germany. Barely two and a half years after its foundation, the AfD received nearly 5% of the votes in the Federal Election 2013, entered five state parliaments and gained several seats in the European Parliament. Whereas right-wing populist parties are a well-studied phenomenon in several (West-)European countries (see Mudde 2007, 2013), this type of party has effectively been irrelevant in the Germany party system (Decker 2004, 160). The rapid development of the AfD fueled expectations that the German party system is undergoing structural changes (Poguntke 2014) and that the AfD has the potential of becoming a permanent extension of the German party system at the right hand side of the ideological spectrum. Yet, there is little systematic research on how the AfD fits into the German party system and its underlying ideological space.

Existing studies either explore the attitudes and motives of AfD voters (Berbuir, Lewandowsky, and Siri 2015; Schmitt-Beck 2014) or extract policy positions from the AfD's party manifesto (Arzheimer 2015; Franzmann 2014). Party manifestos are certainly valuable documents to study the ideological positions of political parties. Party candidates, however, play a crucial role in conveying manifestos to the electorate. In the course of this transfer they have leeway to frame positions in a certain way and to stress those positions that they personally value the most and to downplay those positions they do not support as fiercely. The ideological orientation of party candidates should provide valuable insight on the ideological position of their political party. Thus, the first research question at the center of this study concerns the positioning of AfD candidates in the ideological space underlying the German party system.

Focusing on candidates also provides an opportunity to take a closer look at the potential causes of ideological intra-party heterogeneity. Party manifestos tend to mask ideological heterogeneity within parties, as these documents are designed with the purpose to pinpoint the party's common goals in a way that is easily consumable by voters and especially by the media. Political dispute and positional ambiguity are

certainly features of a vivid intra-party democracy. If, however, a party is unable to negotiate such conflicts in the long run a party organization puts itself at risk of splitting up.

The AfD experienced a party split in mid-2015, when the Eurosceptic and economically ordo-liberal AfD founder Bernd Lucke resigned as party leader and founded a new party, the "Allianz für Fortschritt und Aufbruch" (ALFA), which has yet not been able to live up to electoral popularity of the AfD. Frauke Petry, spokesperson for the AfD Saxony and known for her nationalist, anti-immigration, and anti-abortion positions, became the AfD's new federal party leader. At first glance, the party split may be interpreted as a personal dispute between ambitious party animals. Yet, it is becoming clear that the new party leadership denotes a fundamental change in the positioning of the AfD, shifting from ordo-liberal economic views towards nationalist conservative views. After the split, and in the wake of the current migration crisis, the remaining AfD managed to constantly stabilize its vote share in opinion polls well above the 5% threshold.

In this study, we argue that this recent party infighting and the eventual split of the AfD is rooted in a deeper ideological divide between the mostly West German ordo-liberals and the East German national-conservatives within the AfD, which was already apparent in the 2013 Federal Election. Notwithstanding that some of the established German parties (e. g., Left Party) may also suffer from ideological East-West differences, the exploration of ideological differences between East and West German AfD candidates is placed at the center of the second research question.

To address these questions, the empirical analysis utilizes data from the German Longitudinal Election Study (GLES) candidate campaign survey. The survey was conducted among candidates for the German Bundestag during the German Federal Elections 2013 and includes multiple issue items which can be used to extract latent ideological dimensions. Specifically, we use the Blackbox method (Poole 1998) which generalizes the Aldrich-McKelvey scaling procedure (Aldrich and McKelvey 1977) to multiple dimensions and missing data (Poole et al. 2016). Despite this method having been designed to extract ideal points from multiple issue survey data, this article marks, to our knowledge, the

first time it is applied to German candidate survey data (for other applications of Blackbox scaling see, e. g., Saiegh 2015).

6.2 THEORETICAL FRAMEWORK

6.2.1 *Literature Review*

Despite a vibrant public debate about the AfD, there are only a few scientific studies on the AfD available so far. The first strand of contributions focusses on the "political demand side" and explores who votes for the AfD and for what reasons. In a quantitative analysis of the voting advice application Bundeswahlkompass, Berbuir, Lewandowsky, and Siri (2015) show that the sympathizers of the AfD are predominantly male, belong to the age groups 25 to 35 years or 45 to 54 years, are well educated, financially well situated and also interested in politics. Politically, they position themselves at the center of the ideological spectrum and tend to have voted for the CDU/CSU and FDP in the past. This finding is corroborated by a post-election survey, which additionally shows that even former voters of left parties (Left party, SPD) and former non-voters are attracted to the AfD (Forschungsgruppe Wahlen 2013). Moreover, AfD sympathizers report being dissatisfied with democracy in Germany (Berbuir, Lewandowsky, and Siri 2015) and the European Monetary Union.

In an analysis of AfD's voters in the German Federal Election 2013, Schmitt-Beck (2014) finds that AfD voters appear to favor a more conservative-authoritarian vision of society, opposing immigration, gender equality and rights for homosexuals. Listing the economic and financial crisis as the most important political issue, as well as fear of this crisis are strong predictors for the intention to vote for the AfD and the actual voting decision. Additionally, a negative attitude towards supporting states suffering from the crisis and a positive attitude towards the assimilation of immigrants also serve as predictors for this intention to vote for the AfD.

For the 2014 election of the European Parliament, Wagner, Lewandowsky, and Giebler (2015), offer further empirical insights regarding AfD voters. Compared to voters of other parties, AfD voters evaluate Germany's

EU membership negatively, consider the influence of the EU on Germany as too large, are afraid that Germany has to pay for other EU member states, and are afraid that immigration to Germany will increase. In total, these studies support the conclusion that the AfD tends to be attractive to voters with national-conservative and more authoritarian views.

A second strand of literature focusses on the "political supply side", comparing the policy positions of the AfD with other parties. Based on a qualitative content analysis of the AfD's 2013 election manifesto, Franzmann (2014) concludes that the party program has a national-conservative to national-liberal character with a strong emphasis on ordo-liberal economic and financial policy and traditional societal values (e. g., family). In comparison to other major German parties, the AfD manages to distinctively position itself in the two-dimensional ideological space. On the economic dimension, the AfD is placed to the right of the CDU and FDP. On the libertarian-authoritarian dimension, their score is slightly higher than the CDU's (Franzmann 2014, 120). Because of its anti-establishment attitude and critique towards the German government in combination with their programmatic focus, Franzmann (2014) sees similarities between the AfD and the appearance of other right wing-populist parties in Europe. Arzheimer (2015) estimates the ideological position of German parties in the 2014 European Parliament using the Wordfish text scaling method (Slapin and Proksch 2008) on electoral manifestos. According to this analysis, the AfD is located at the very right pole of the left-right scale near the CSU and the National Democrats (a radical right party). The qualitative inspection of the AfD manifesto reveals "soft" Euroscepticism and support for stricter immigration laws but no evidence for populism and extremism (Arzheimer 2015). The analysis of AfD's web site and Facebook fan page also indicates that the party is clearly right-wing but not populist or extremist. Comments on the Facebook page, however, reveal resentment against elites, immigrants and homosexuals as well as nationalism.

Regarding the AfD's candidates' position on the causes of the EU economic crisis and political counter-strategies in the 2013 German Federal Election, Schneider and Tepe (2015) find that AfD candidates attribute the crisis primarily to the failure of national governments and the EU. Compared to the other major parties, AfD candidates strongly support

a national crisis strategy consisting of the bankruptcy of EU member states and the return to national currencies. These findings are corroborated by Pieper, Haussner, and Kaeding (2015), who utilize a quantitative and qualitative analysis of manifestos, press releases, and public speeches to qualify the AfD's Eurosceptic positions.

6.2.2 *Positioning AfD candidates in a two-dimensional ideological space*

Notwithstanding national particularities and regional deviations, political scientists generally agree on the existence of a two dimensional ideological space in Western democracies consisting of a socialism vs. laissez-faire/liberalism dimension and a libertarian vs. authoritarian dimension (Kitschelt 1994; Klingemann 1979).

The economic socialism/liberalism dimension is presumed to be particularly relevant in political party competition (e.g., Klingemann et al. 2006, 5) as it concerns how the economy and the distribution of scarce resources, probably the most important aspects of modern societies, should be organized (Kitschelt 1994, 9; Heath, Evans, and Martin 1994). Attributing a strong role to the market and a weak role to the state is labelled as a (market) liberal position. The core value underlying this view is liberty. On the other side of the scale, it is believed that the state should have full control over production resources and is in charge of equal redistribution of goods and services. This position can be labelled socialism with equality as its underlying core value.

In order to formulate a hypothesis about the location of AfD candidates on the economic socialism/liberalism dimension it is helpful to consider the circumstances of its founding (Franzmann 2014, 122). The AfD was founded as reaction towards the way that established conservative parties dealt with the EURO crisis. The AfD regards the failure of national governments to keep up budgetary discipline as a major cause of the EURO and fiscal crisis. Still, no other non-extremist political party suggests the same radical solutions as the AfD, which include the dissolution of the Eurozone, to solve the European debt crisis (Anders 2014, 69-70). Combined with a reorientation towards the concept of a national economy, the AfD stands for an ordo-liberal approach to the economy (Franzmann 2014). Under these premises candidates from

the AfD should be even more skeptical towards fiscal or monetary market interventions than candidates from the CDU. With a pronounced pro-market orientation, the AfD enters into direct competition with the FDP, which traditionally stands for liberal economic policy (Niedermayer 2015, 193). In this particular case it remains an open question, whether AfD or FDP candidates report a stronger market-liberal orientation. Therefore, the first hypothesis reads as follows:

H1a: *AfD candidates are more liberal on the socialism-liberalism dimension than CDU candidates.*

The second dimension of the ideological space tends to capture diverse societal issues, such as culture, crime prevention, education, women's rights, and migration (Franzmann and Kaiser 2006, 165). This dimension is commonly labelled as the libertarian vs. authoritarian dimension. It orthogonally crosscuts the economic socialism/liberalism dimension and deals primarily with the issue of to what extent rules which apply to the communal life are allowed to interfere with individual liberties (Heath, Evans, and Martin 1994, 115-116). One pole of this dimension puts a high value on individualism and therefore leaves decisions on lifestyles, sexual orientation etc. to the individual. This pole is labeled as libertarian (Kitschelt 1994, 9-10). The other side of the scale emphasizes traditional-conservative societal values, such as family, home country, law and order, obedience, and tradition. In this view, an individual's way of life should be predetermined by the values of the majority. This pole can be called authoritarian.

Two policy fields might be of particular relevance to deriving an expectation on the positon of AfD candidates on the libertarian-authoritarian dimension. First, there has been growing dissatisfaction among traditional CDU voters with the replacement of the traditional conservative position when it comes to societal issues such as prenatal diagnostics or gender mainstreaming. In these policy fields, the AfD considers itself as the party that protects the core conservative values of family (Niedermayer 2015, 192). The second policy field concerns the role of migration. In the 2013 German federal election campaign, the conservative and liberal party emphasized the positive labor market effect of immigration (Schmitt-Beck 2014, 106), while the AfD used a particularly negative image of migration over the course of their electoral campaign. Using

survey data from electorates, Schmitt-Beck (2014) shows that AfD voters who made their decision close to the election day strongly oppose a multicultural society, while those AfD voters who were early deciders choose the party because of their position on the EURO crisis.

Both policy fields illustrate why one can assume that the ideological orientation of AfD candidates is more authoritarian than the orientation of an average CDU candidate. With a pronounced authoritarian orientation (in particular towards the migration topic), the AfD competes with the CSU, the Bavarian sister party of the CDU. In contrast to the CDU, the CSU stands for stricter conservative societal values, holds on to traditional gender roles and supports harsher law and order-policies (Kiessling 2007, 230). It remains an open question whether AfD or CSU candidates report a stronger authoritarian orientation. According to these considerations the second hypothesis states the following:

H1b: *AfD candidates are more authoritarian on the libertarian-authoritarian dimension than CDU candidates.*

6.2.3 *Positional differences between Eastern and Western AfD candidates*

Even before the party split in mid-2015, there has been growing evidence that the AfD suffers from an intense ideological conflict between two factions of the party (Niedermayer 2015, 197), labeled as market liberals and nationalist conservatives. These two factions can be geographically approximated by an East/West divide. The West German branch, especially under the former party leader Bernd Lucke, stood for a strict focus on ordo-liberal and Anti-EU topics. The Eastern branch, led by the new federal party leader Frauke Petry, in contrast, insists on centering the AfD on an authoritarian position towards topics such as anti-immigration, same-sex marriage, abortion and national identity.

The difficulties in defining a relationship between the AfD and the right-wing anti-Islam PEGIDA movement presents another example of ideological differences between AfD leaders from West and East Germany. While West German AfD leaders were reluctant to acknowledge PEGIDA as legitimate protesters, East German AfD officials considered the protest as a confirmation of their anti-Islamic and national conservative positions. In an attempt to prevent the nationalist conservative fac-

tion from taking over the leadership of the AfD, Bernd Lucke launched an intra-party initiative (Weckruf 2015) trying to gather the ordo-liberal AfD faction. This maneuver, however, only accelerated the polarization of party members and led to his resignation at the AfD party congress in Essen in July 2015.

This study argues that the intra-party conflict originated from substantially different ideological positions on the libertarian-authoritarian dimension among those who joined the AfD in Eastern and Western Germany. What is more, we assume that this divide was already apparent in the context of the 2013 Federal Election. The critique towards the European Union, as well as the general orientation towards market liberalism (Niedermayer 2015, 193), certainly constitutes the common ideological basis for the AfD and its candidates. The position on the libertarian-authoritarian dimension, however, is presumed to differ between West German AfD candidates, holding libertarian societal values and East German AfD candidates taking authoritarian views on nationality and immigration policies. These considerations lead to the following conditional hypothesis.

H2: *East German AfD candidates are more authoritarian on the libertarian-authoritarian dimension than West-German AfD candidates.*

6.3 DATA AND METHODS

6.3.1 *Dataset*

The empirical analysis utilizes data from the 2013 candidate study , conducted by the German Longitudinal Election Study (GLES) led by Prof. Dr. Bernhard Weßels. The data was collected in the time period between October 2013 and January 2014, after the Bundestag Election of 2013. In this survey, all candidates representing parties in the former Bundestag, as well as candidates from the Pirate Party and the AfD (n = 2.776), were sent a questionnaire (Rattinger et al. 2014, 4-5). In addition, candidates were also offered the option to fill out the survey online. In total, 1.137 candidates participated in the survey, which corresponds to a response rate of about 41 percent. The survey contains detailed item

batteries on various topics such as type of candidacy, policy positions, as well as the candidate's personal and socio-demographic background. Since the Pirate party – despite a good prognosis (Debus and Faas 2013, 189) – lost their electoral relevance in the last legislative period, we excluded their candidates from the following analyses.

6.3.2 *Operationalization of dependent variables*

Following the basic space theory (Ordeshook 1976; for a summary see Armstrong et al. 2014, 8-10), ideology is understood as the position of a candidate in a low-dimensional policy space (Converse 1964). The dimensions of this space are assumed to structure the opinions of political actors and citizens on multiple issues. Even though political actors "may have preferences across a dizzying array of policy issues – abortion, tax rates, gun control, foreign policy – these attitudes appear to be organized by positions along a small number of latent dimensions" (Armstrong et al. 2014, 8). According to this conceptualization ideology refers to the position of a political actor on each of these latent dimensions.

Although the basic space theory dates back almost forty years, scaling procedures to estimate the positions of political actors on the respective dimensions, also referred to as ideal point, were developed in the last twenty years (for an overview see Poole 2005; Armstrong et al. 2014). In recent years, several scholars have developed innovative measures to estimate the comparable positions of voters, parties, and politicians based on different data sources such as roll-call data, expert surveys or party manifestos (Lo, Proksch, and Gschwend 2014; Poole and Rosenthal 1997; Saiegh 2015; Slapin and Proksch 2008). All of these techniques share a common finding: it is usually sufficient to locate political actors in a two-dimensional space (Poole and Rosenthal 1997). The first dimension often denotes economic left-right differences, while the second dimension usually locates political actors according to societal issues.

With the Blackbox scaling technique, Poole (1998) developed a method which enables scholars to recover "a basic space from a set of issue scales" (Poole 1998; Armstrong et al. 2014, Chap. 3) from survey data.

Blackbox scaling allows researchers to obtain the ideal points of survey respondents based on their answers to issue scales, which are commonly measured on Likert scales. The method can be compared to factor analysis, yet it has several statistical advantages compared to factor analysis as "the scaling procedure [Blackbox scaling]... analyzes the data matrix directly without any intervening transformations of the original data" (Poole 1998, 954; see also Armstrong et al. 2014, 65-66). Blackbox scaling has been recently implemented in the statistical software R (Poole et al. 2016) which will be applied in the subsequent empirical analysis.

6.3.3 *Operationalization of independent variables*

Party affiliation is measured via a categorical variable covering seven parties (CDU, CSU, SPD, Green Party, Left Party, FDP, AfD). For the regression analysis, this variable is decomposed into dummy variables with the CDU serving as reference category since this party made up the largest fraction in the previous legislative period. To measure East-/West differences, a simple dummy variable is used with respondents running for a list or district seat in West Germany as the reference category.

The selection of control variables draws on previous research by Norris and Lovenduski (1995, 210-211), who point out that "the attitudes and values of politicians will probably reflect their formative experience in early childhood, formal education, the workplace and family". Kitschelt (1994, Chap. 1) more specifically suggests that education and occupation should affect an individual's positioning on the socialism/liberalism dimension, while gender, age, and life cycle is expected to play a more important role for the positioning on the libertarian-authoritarian dimension. Candidates with academic training should be positioned to the right side of the socialism/liberalism dimension, while at the same time positioned more to libertarian end of the libertarian-authoritarian dimension. Under the presumption of a gendered world female candidates might be expected to be more pro-welfare state and therefore be nearer to the socialist end of the first dimension. Age might be expected to have a stronger effect the

libertarian-authoritarian dimension, while a migration background and an urban residence might correspond with libertarian world views.

The final regression models include the following set of control variables (see Appendix Table D.1): age (in years), gender (0 = male, 1 = female), vocational training (academic, vocational, none/still studying or in training; reference category: vocational training), migration background (reference category: no) and self-descripted place of residence (rural vs. urban; reference category: rural). Basic descriptive statistics for all variables can be found in Appendix Table D.2.

6.4 EMPIRICAL ANALYSIS

6.4.1 *Result of the Scaling Procedure*

The GLES candidate survey includes a battery of twelve issue items displayed in Table 6.1. Using Blackbox scaling, we extracted three dimensions. We specified that ideal points are computed only for candidates who answered at least ten of the twelve items, which makes a total of 945 candidates.

Table 6.1 provides information on the overall and item-specific goodness of fit of the Blackbox scaling procedure. It displays, in the last row, that the position of candidates on the first dimension explains more than 64 percent of variation in the answers to the twelve issue scales. A second dimension adds another 7.82 percent of explanation and the third dimension 4.23 percent. As Armstrong et al. (2014, 70) note, the increase in the goodness of fit does not necessarily imply a meaningful interpretation of the respective dimension. The additional dimensions might just fit "noise in the data" (Armstrong et al. 2014, 70), but do not provide any additional value to the understanding of the ideological position of candidates on latent dimensions. Therefore, we focus on the issue specific estimates also reported in Table 1, particularly the issue-specific weight term W and R^2 value of each dimension.

The weight term W is comparable to the factor loadings in a factor analysis (Armstrong et al. 2014, 70) and the R^2 values provide information on how much variation in the items is explained by the respective dimensions. As noted above, the increase in R^2 values between the di-

mensions is of relevance, as these indicate which items are important for the specific dimension. Higher values indicate that the variation in these items is explained well by the model. As a consequence, an increase in R^2 values from one dimension to the next implies that this issue is of great importance for the interpretation of this dimension. In analogy to factor analysis, an increase in R^2 values between two dimensions implies that the respective item loads strongly on the new dimension.

Table 6.1: Issue-specific weight terms (w), R^2 values and goodness of fit for three Dimensions

Item	Dim. 1		Dim. 2		Dim. 3		Dif. in R^2	
	R^2	w	R^2	w	R^2	w	D2-D1	D3-D2
Immigrants should be obligated to assimilate to German culture.	0.437	-2.531	0.644	-2.536	0.652	0.596	0.207	0.008
Government should not intervene economy.	0.532	-2.983	0.623	1.812	0.692	1.814	0.091	0.069
For environmental protection, extensive measures are needed.	0.503	2.453	0.535	-0.903	0.544	-0.519	0.032	0.009
Same-sex marriage should be forbidden by law	0.242	-1680	0.544	-2.733	0.568	0.886	0.302	0.024
Women should be privileged in application and promotion processes.	0.549	3.003	0.568	-0.823	0.815	3.410	0.019	0.247
Delinquents should be punished harder than to date.	0.313	-2.134	0.602	-2.958	0.601	-0.092	0.289	-0.001
The provision of stable social security should be most important goal of government.	0.474	2.471	0.559	-1.525	0.630	-1.682	0.085	0.071
Government should create measure to decrease income disparities.	0.663	3.535	0.758	-1.960	0.801	-1.565	0.095	0.043
Immigrants are good for German economy.	0.198	1.251	0.443	2.018	0.454	0.475	0.245	0.011
Women should decide on abortion on their own.	0.228	1.730	0.417	2.304	0.433	-0.834	0.189	0.016
Energy supply should be secured with nuclear power.	0.577	-3.035	0.578	-0.044	0.612	1.173	0.001	0.034
There should be a female quota in supervisory board of large companies.	0.793	4.715	0.801	-0.674	0.899	2.830	0.008	0.098
Goodness of Fit (Percent of Variation Explained)	65.42		7.82		4.23			

The overall goodness of fit values indicate that many issues are already well explained by the first dimension. Most of these issues explained by the first dimension are related to the economy and thus indicate that the first dimension describes the classical socialism-liberalism divide between parties on economic issues. Environmental protection is also well explained by candidates' position on this dimension which might be explained by the fact that environmental protection often seems to be in conflict with economic growth.

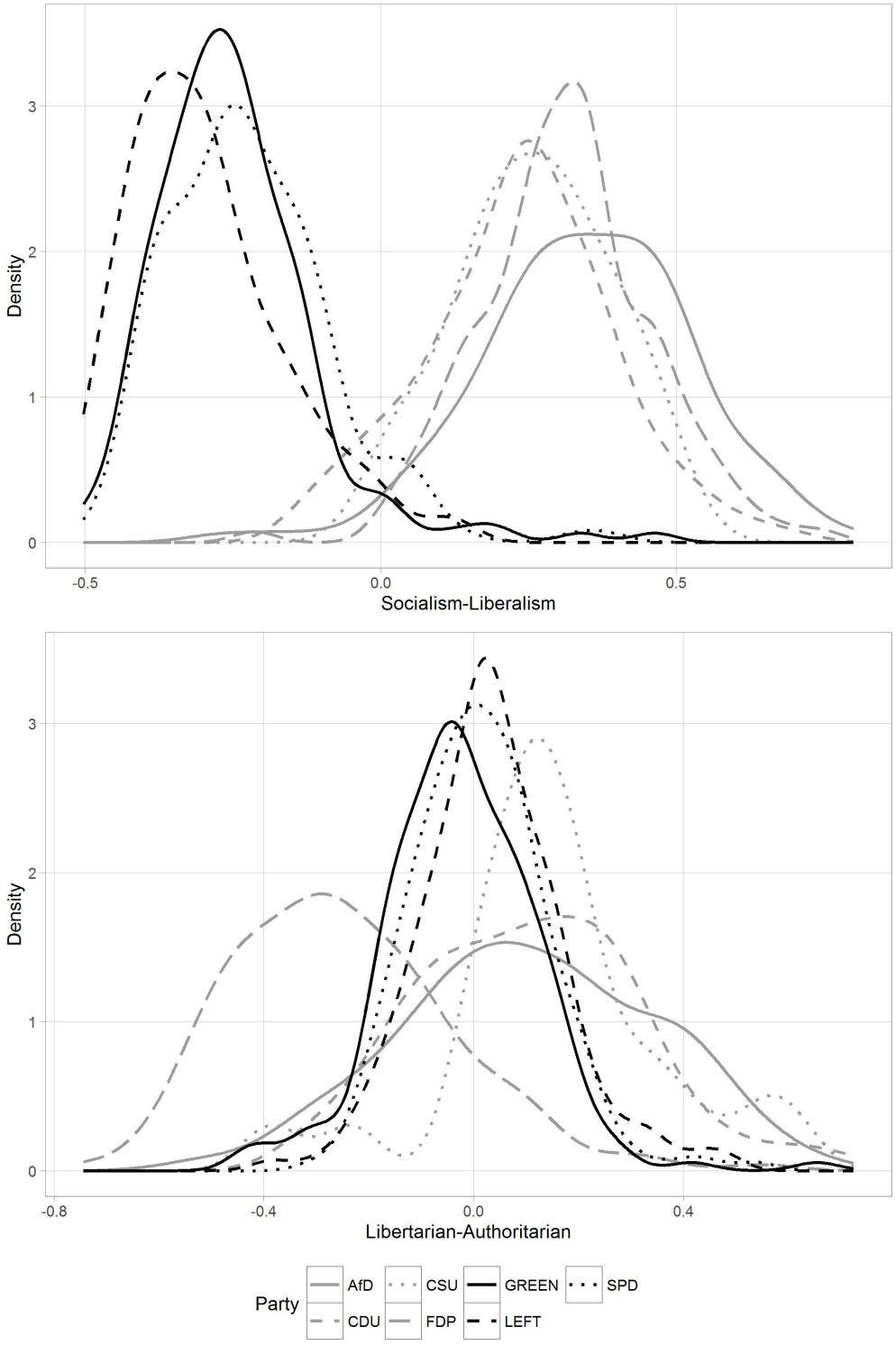
The second dimension increases the R^2 in a substantive way on five issue items. These issues are all related to societal issues such as immigration politics, (criminal) sentencing and gender equality. It is interesting that these items also include the question whether "immigrants are good for the German economy" since one could have expected this issue to load on the first dimension. The relevance of this issue for the second dimension underlines our assumption that the second dimension identifies the libertarian vs. authoritarian dimension. Thus, the second dimension corresponds nicely to the results of many other studies that identify these dimensions as most relevant (e.g. Poole and Rosenthal 1997).

The third dimension improves the explanation of variation in solely one item, regarding the privileges of women in application processes. The respective item is already well explained by the first dimension as indicated by the comparably high R^2 and W values for this dimension. Thus, the third dimension does not allow for a more substantive interpretation of ideological positions. Consequently, our analysis focuses on the explanation of candidates on the first and second dimension which we denote as "socialism vs. liberalism" (Dimension 1) and "libertarian vs. authoritarian" (Dimension 2).

6.4.2 *Descriptive analysis*

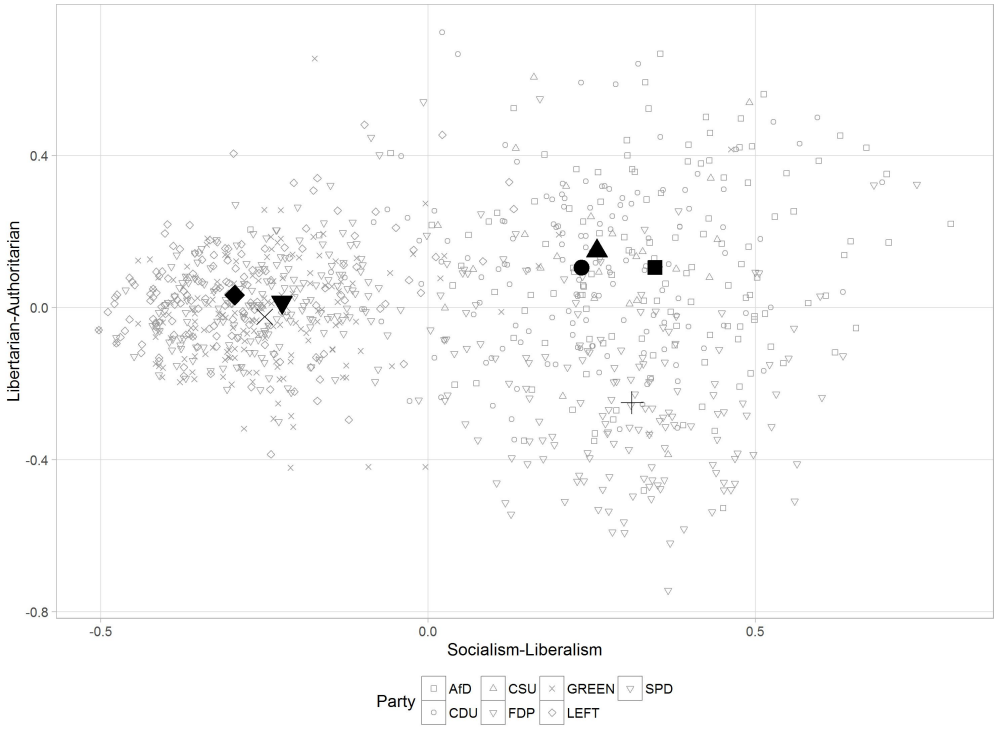
Figure 6.1 presents the party-specific density plots for each of the two dimensions. Figure 2 plots candidates' ideal point on the socialism-liberalism dimension against their ideal point on the libertarian-authoritarian dimension. Candidate values in Figure 2 are printed in lighter grey and the party specific mean ideal points are printed in bold. Moving from

Figure 6.1: Party-specific distribution of ideal points



left to right, the Left Party is positioned at the left end of the socialism-liberalism dimension, followed by the Green Party and the SPD. Then

Figure 6.2: Party-specific ideal points in a two-dimensional political space



there is a gap (see Figure 6.1 bimodal distribution), followed by a second cluster of parties consisting of the CDU, CSU, FDP and AfD. Moving from right to left within this cluster, the AfD is positioned at the right end of the socialism-liberalism dimension, followed by the FDP, the CSU and the CDU. Focusing on the party specific average ideal points on the socialism-liberalism dimension, the average AfD candidate takes a more liberal position than the CDU candidate and also slightly more liberal position than the average FDP candidate.

The ideal points on the libertarian-authoritarian dimension follow a unimodal distribution (see Figure 6.1), with SPD candidates being closest to the mean position on this dimension. Moving from bottom to the top on the libertarian-authoritarian dimension, candidates from the FDP are followed by candidates from the Green Party, the SPD, the Left Party, the AfD, the CDU and the CSU. This ranking, however, underscores two remarkable aspects. First, the position of FDP candidates marks an outlier position on the libertarian-authoritarian dimension as these candidates take particularly strong libertarian ideal points. Second, candidates from the CDU and AfD take almost identical positions

on the libertarian-authoritarian dimension. Candidates from the CSU score the highest on libertarian-authoritarian dimension, even though compared to the CDU and AfD, the CSU position on the second dimension cannot be regarded as an outlier.

In total, the graphical analysis (see Figure 6.1 and 6.2) reveals two clusters of parties, namely a left cluster consisting of candidates from the Left Party, SPD and Green Party and a conservative cluster including candidates from the CDU, CSU and the AfD. In this dichotomy, it is the FDP which appears to be an outlier to the conservative party cluster as it scores too low on the libertarian-authoritarian dimension.

Another interesting aspect of Figure 6.2 concerns the spread of ideal points around the party-specific mean ideal point. Compared to the conservative party cluster, the individual ideal points of candidates from the left party cluster lie rather close to the party-specific mean ideal point. Candidates from the cluster of conservative parties tend to show a larger spread around the mean ideal point of these parties. Thus, in terms of ideological heterogeneity, candidates from the Left Party, the Green Party and the SPD tend to share more ideological beliefs than candidates from the CDU, CSU, AfD and FDP. The heterogeneity of ideological positions within political parties and the determinants of individual ideal points will be explored in the next section.

6.4.3 *Regression analysis*

Table 6.2 presents six OLS regression models using candidate weights and heteroscedasticity-consistent (robust) standard errors. For each of the two dependent variables (socialism-liberalism score, libertarian-authoritarian score), we estimate three models. Models 1 and 4 are the baseline specifications containing only the candidates' party affiliation as an independent variable. Models 2 and 5 include the full set of socio-demographic control variables. Models 3 and 6 additionally include a series of multiplicative interaction terms between party affiliation and candidature in East vs. West Germany.

Table 6.2: OLS Regression

	(1)	(2)	(3)	(4)	(5)	(6)
CSU	0.026	0.002	-0.001	0.037	0.046	0.032
	(0.031)	(0.031)	(0.031)	(0.052)	(0.051)	(0.052)
SPD	-0.449**	-0.444**	-0.452**	-0.092**	-0.090**	-0.105**
	(0.017)	(0.016)	(0.018)	(0.021)	(0.021)	(0.023)
FDP	0.079**	0.060**	0.059**	-0.353**	-0.339**	-0.358**
	(0.018)	(0.018)	(0.020)	(0.025)	(0.026)	(0.028)
GREEN	-0.477**	-0.473**	-0.473**	-0.132**	-0.114**	-0.127**
	(0.017)	(0.017)	(0.019)	(0.021)	(0.022)	(0.024)
LEFT	-0.523**	-0.517**	-0.523**	-0.076**	-0.087**	-0.106**
	(0.017)	(0.017)	(0.019)	(0.021)	(0.022)	(0.024)
AfD	0.117**	0.117**	0.113**	-0.003	0.003	-0.026
	(0.021)	(0.021)	(0.022)	(0.028)	(0.029)	(0.030)
East		-0.001	-0.025		-0.021	-0.138**
		(0.013)	(0.032)		(0.017)	(0.044)
Age		-0.001†	-0.001†		0.002**	0.002**
		(0.000)	(0.000)		(0.001)	(0.001)
University degree		-0.002	-0.002		-0.056**	-0.055**
		(0.011)	(0.011)		(0.015)	(0.015)
In edu./voc. train./ no train.		-0.014	-0.013		-0.044	-0.042
		(0.025)	(0.025)		(0.028)	(0.028)
Female		-0.081**	-0.080**		-0.002	0.000
		(0.011)	(0.011)		(0.013)	(0.013)
Migration background		-0.047**	-0.047**		-0.033†	-0.031†
		(0.013)	(0.013)		(0.017)	(0.017)
Urban residence		-0.007	-0.007		-0.051**	-0.050**
		(0.011)	(0.011)		(0.013)	(0.013)
East × CSU			0.000			0.000
			(.)			(.)
East × SPD			0.060			0.118*
			(0.046)			(0.050)
East × FDP			0.012			0.142*
			(0.044)			(0.059)
East × GREEN			0.014			0.106*
			(0.040)			(0.051)
East × LEFT			0.038			0.142**
			(0.040)			(0.053)
East × AfD			0.031			0.224**
			(0.058)			(0.084)
Constant	0.228**	0.313**	0.316**	0.111**	0.091*	0.102**
	(0.013)	(0.029)	(0.030)	(0.018)	(0.038)	(0.039)
Observations	945	905	905	945	905	905
Adjusted R^2	0.767	0.786	0.785	0.283	0.307	0.313

Standard errors in parentheses

† $p < 0.10$, * $p < 0.05$, ** $p < 0.01$

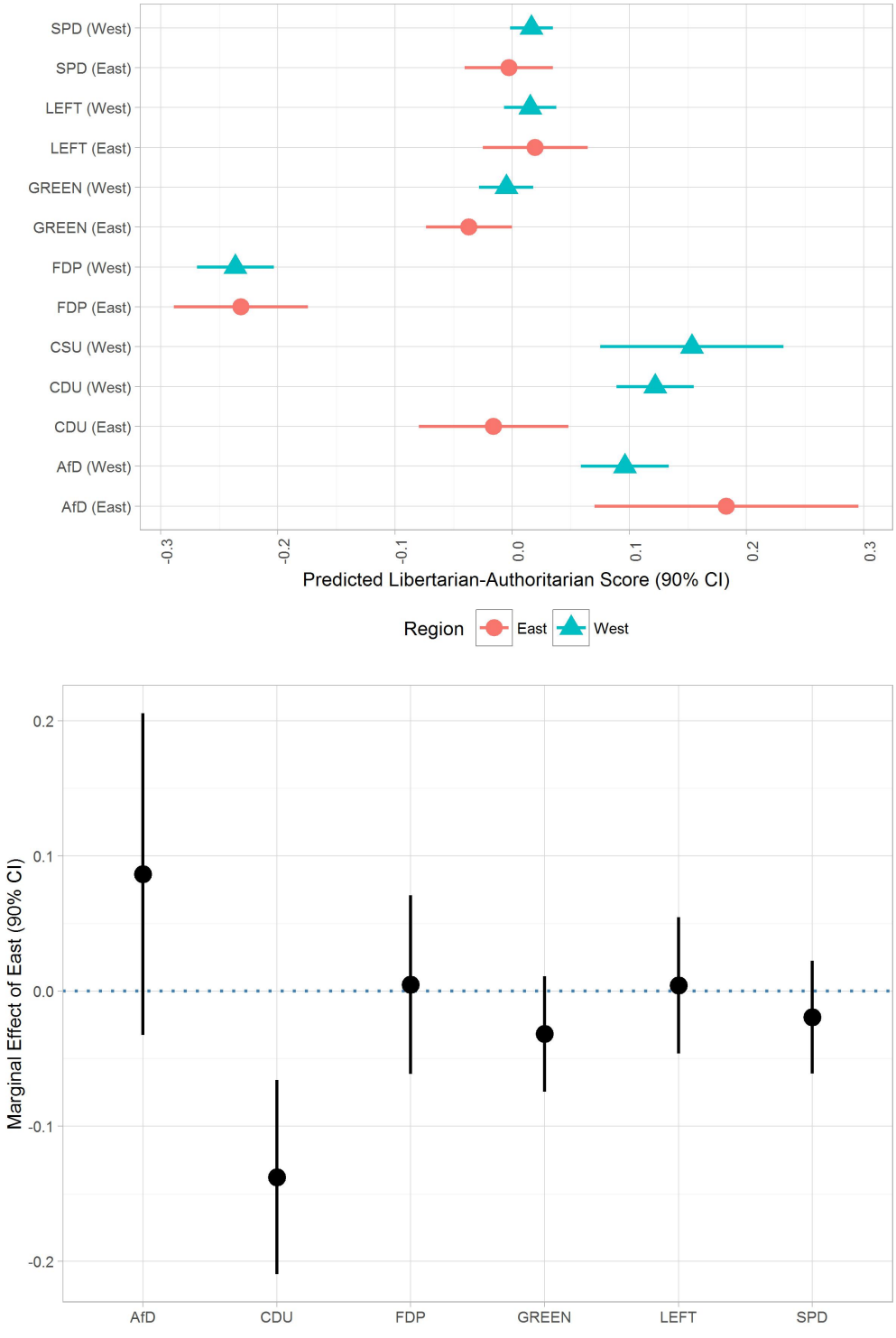
The adjusted R^2 values indicate a very good fit for Models 1-3 and a moderate fit for Model 4-6. Comparing the baseline models (Models 1 and 3), with those including the additional socio-democratic control variables (Models 2 and 4), shows that the party affiliation explains the largest proportion of variance on both dependent variables. The inclusion of socio-demographic control variables leads only to a slight increase in the adjusted R^2.

The descriptive findings from the Figure 1 and 2 are largely confirmed by the multivariate analysis. Compared to CDU candidates, AfD candidates score significantly higher on the socialism-liberalism dimension, which confirms H1a. Contrary to H1b, however, there are no significant differences between CDU and AfD candidates on the libertarian-authoritarian dimension. This may be surprising since the AfD appeared to present itself not only as ordo-liberal and Eurosceptic but also as a party that strongly supports traditional societal values.

In addition, there are some remarkable findings concerning the impact of socio-democratic features on the ideal points taken by candidates. Higher age corresponds with lower scores on the socialism-liberalism dimension and higher scores on the libertarian-authoritarian dimension. Furthermore, we find that females score significantly lower on the socialism-liberalism dimension than males. A less liberal orientation is also associated with candidates having a migration background. Both, migration background and urban residence is negatively associated authoritarian positions. These patterns largely confirm research that used general population surveys (e.g. Heath, Evans, and Martin 1994, 126-127). Yet, it is still remarkable to find these robust associations on a sample of candidates after controlling for party affiliation.

The next step of the empirical analysis is to explore ideological differences between AfD candidates in East and West Germany as proposed in H2. First, a series of t-Tests comparing the average score on the first and second dimension for East and West German candidates on separate party samples reveals that there are no East/West differences on the socialism-liberalism dimension. For CDU and AfD candidates, however, we find such differences on the libertarian-authoritarian dimension. East German CDU candidates score lower (-0.118, p-value 0.015) on the libertarian-authoritarian dimension than their West Ger-

Figure 6.3: Effect of party affiliation on libertarian-authoritarian score conditioned by East vs. West candidacy



man party colleagues while East German AfD candidates score higher (0.113, p-value 0.089) than their West German party colleagues.

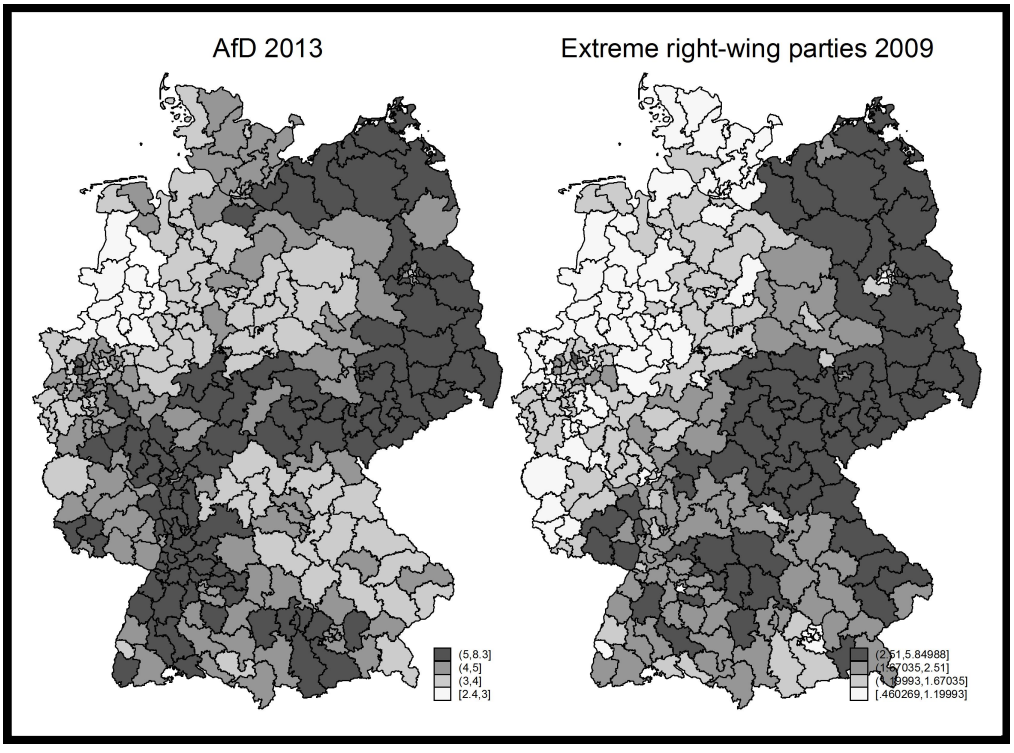
Second, an F-Test is used to explore whether the inclusion of interaction terms in Models 3 and 6 improves the statistical model. The F-Test comparing Models 2 and 3 reveals that the inclusion of the set of interaction terms does not improve the overall model (F=0.41; p=0.842). None of the five interaction terms reaches conventional levels of statistical significance. Again, this supports the expectation that there are no ideological East-West differences on the socialism-liberalism dimension since this dimension represents the most essential common ideological ground for members of the same party. The F-Test comparing Models 5 and 6, in which the libertarian-authoritarian scale serves as the dependent variable, reveals a significant model improvement (F=2.72; p=0.019). All five interaction terms reach conventional levels of statistical significance.

In order to explore these conditional relationships between party affiliation and East-West candidacy in further depth, Figure 3 presents the predicted values and marginal effects (see, e.g. Kam 2007) based on Model 6. The upper panel of Figure 3, representing the effect of party affiliation on the libertarian-authoritarian dimension conditional on East-West candidature, shows that there are no substantive ideological differences among candidates from East respectively West Germany within the SPD, Green Party, the Left Party and the FDP. The predicted libertarian-authoritarian score for West German AfD candidates is equally as high as the predicted libertarian-authoritarian score for West German CDU candidates. These West German CDU candidates tend to be more authoritarian than their party colleagues from East Germany. East German AfD candidates score slightly higher on the libertarian-authoritarian than CSU candidates. Comparing East and West German AfD candidates ideological differences show in the opposite direction as AfD candidates in East Germany score substantively higher on the libertarian-authoritarian scale than their party colleagues from West Germany. The lower panel of Figure 3, representing the marginal conditional effect, confirms that West German CDU candidates are significantly more authoritarian than their party colleagues from East Germany. The difference between East and West German AfD candidates slightly misses conventional levels of significance.

There may be two supplementary explanations why East German CDU candidates are less authoritarian than their party colleagues from

West Germany. One reason may be seen in the historical origin of the East German CDU (esp. Demokratischer Aufbruch) which contains some elements of religiously inspired fundamental opposition towards a socialist centralized state. These experiences may still result in a more humanistic world view in its candidates. The second argument draws on the specifics of the East German party system, in which compared to the West German party system, the Left party is a major party and right-wing extremist parties tend to find loyal voters (also see Immerzeel, Lubbers, and Coffe 2015). In this East German context of party competition, it might be particularly important for CDU candidates to delimit its ideal point on the libertarian-authoritarian dimension from right-wing extremists.

Figure 6.4: AfD and extreme right-wing parties share of the vote in the 2013 and 2009 Federal Election



To further improve our understanding of ideological East-West differences within the AfD, particularly on the role of anti-migration positions, the analytical perspective is switched back to the "political demand side". Figure 4 presents the share of the second vote across the 299 German electoral districts for extreme right-wing parties in the 2009 Federal Election and for the AfD in 2013 in four quantiles. The darker

the filling in a constituency the higher the vote share. Apparently, the AfD has been most successful in electoral districts where extreme right-wing parties were relatively successful in the past.

These are in most cases electoral districts in Eastern Germany but also electoral districts in Rhineland-Palatinate, Baden-Württemberg and even in Bavaria where the AfD has a dominant competitor in the CSU. These auxiliary descriptive findings foster the interpretation that AfD candidates in East Germany adapt to authoritarian local clusters of voters that demand authoritarian positions. It seems that already in the Federal Election 2013 the AfD in East Germany was attractive to political entrepreneurs with national-conservative or even right-wing extremist positions.

6.5 DISCUSSION AND CONCLUSIONS

This study applied Blackbox scaling (Poole 1998; Poole et al. 2016) to GLES candidate survey data collected over the course of the 2013 German Federal Election. Blackbox scaling provides a statistical technique to recover such a basic policy space from a multiple issue items measured on a Likert scale. We use this method to explore an emerging right-wing party in Germany, the Alternative für Deutschland (AfD). Specifically, we pose two research questions, namely how AfD candidates position themselves in the ideological space underlying the German party system and whether the splitting of the AfD can be traced back to ideological East/West differences.

First, the Blackbox scaling of candidates' responses to a 12-item battery on multiple policy issues reveals a meaningful and robust two-dimensional policy space (also see Technical Appendix), with one dimension capturing the conflict between socialism and market liberalism and another dimension capturing the conflict between a libertarian and authoritarian value orientation. On the socialism-liberalism dimension the average AfD candidate was more liberal than the average CDU candidate and even slightly more liberal than the average FDP candidate. Concerning the libertarian-authoritarian scale, AfD candidates were positioned close to the CDU and scored slightly lower than the average CSU candidate. Multivariate regression results corroborate that AfD

candidates took more liberal positions than CDU candidates (H1a). In contrast to H1b, however, AfD candidates were not significantly more authoritarian than CDU candidates. This positioning of AfD candidates in the German party system indicates that at least in 2013, AfD candidates were not offering an extreme ideological position. To this end, the party's "unique selling proposition" in the 2013 German Federal Election has been its anti-EU position.

Second, scaling ideal points from candidate survey data provides the opportunity to take a closer look at ideological heterogeneity within parties (H2). We argue that the conflict between the ordo-liberal Eurosceptics and the nationalist conservative faction within the AfD can be geographically approximated by an East/West divide among AfD candidates. To test this argument, we explored the impact of party affiliation on candidate's ideal point on the two dimensions, conditional on whether they were candidates in East or West Germany. As expected, no such conditionality can be found on the socialism-liberalism dimension, since this dimension captures the most essential common ideological ground ("super-issue"). Concerning the libertarian-authoritarian scale, however, we find signs of a conditional relationship. Specifically, AfD candidates from East Germany were more authoritarian than their party colleagues from West Germany.

The ideological differences between West German ordo-liberal Eurosceptics and East German nationalist conservatives which eventually lead to the party splitting and the reassignment of the AfD founder Bernd Lucke in mid-2015 had already been sown in the 2013 Federal Election. The rapid electoral successes of the AfD in subsequent elections at the state and European level only accelerated this early intra-party conflict. After its foundation, the AfD primarily attracted CDU and FDP partisans who were frustrated by the way in which their parties dealt with EU financial crisis. Today, the course of the AfD is dominated by the nationalist conservative faction. Under the leadership of Frauke Petry, the AfD seeks to mobilize voters at the right margin of the ideological spectrum, many of which felt not represented by radical right-wing parties. In electoral terms this positioning opens up a new voting bloc. Bernd Lucke's new party ALFA, on the other hand, continues to focus on economically ordo-liberal positions and thereby puts itself into direct completion with a recovering FDP. Going back to

Schmitt-Beck (2014) study of AfD voters in the 2013 Federal Election, the shift towards a more pronounced nationalist conservative profile seems to be more in line with the AfD electorate's authoritarian policy preferences. With its current ideological orientation and an ongoing immigration crisis, the AfD is likely to become a relevant extension of the German party system. Yet, the fate of the AfD will depend on whether the party leadership is capable of containing extremist currents in the party organization.

The development of conflicting factions is certainly an inevitable aspect of an emerging party, in particular in parties tending to the termini of the ideological spectrum. In the European context several populist right-wing parties suffered from related intra-party divisions on the two ideological dimensions (Mudde 2007, 265; Norris 2005, 217-218). For example, the UK Independence Party (UKIP), which started as a party putting forward the withdrawal of the UK from the EU, suffered from internal quarrels between its nationalist party leader Nigel Farage and the economically liberal MP Douglas Carswell and lately began to emphasize more authoritarian positions (Abedi and Lundberg 2008, 81; Clark 2012, 110; Dennison and Goodwin 2015). The Freiheitliche Partei Österreichs (FPÖ) and the Front National in France – two relatively established parties – also had to cope with party splits (Mudde 2007, 273). The FPÖ's current party leader Heinz-Christian Strache for example also marginalized the ordo-liberal faction within his party in order to strengthen the nationalist faction. On these grounds one might argue that in the European context, the AfD is not exceptional in its ideological division on the two ideological dimensions. The uniqueness of the AfD is its geographical division, which can only be explained through Germany's political division and re-unification. This observation may provide an interesting avenue for further comparative research into the ideological divisions of right-wing Eurosceptic parties in Western and Eastern Europe.

7

VARIETIES OF LEGISLATIVE VOTING PATTERNS: THE IMPACT OF MAJORITY, MINORITY AND CARETAKER GOVERNMENTS

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Under Review at *Government & Opposition*

ABSTRACT

This paper discusses how legislative voting patterns are affected by different types of governments. The analysis relies on a novel data set containing complete voting records of all members of the Czech Chamber of Deputies from 1996 to 2013. By employing spatial models, we analyze the positions of parties under substantive minority, formal minority, caretaker, and majority governments. The evidence presented in this paper corroborates previous findings that majority governments and formal minority governments are characterized by a dominance of government-opposition voting, while left-right differences become more relevant in times of substantive minority governments. We further specify this finding by offering a discussion of patterns observed under caretaker governments. We show that they share important characteristics with substantive minority governments. The results expand our understanding of strategic party positioning as reflected by legislative voting patterns and have implications for the analysis of roll-call votes in parliamentary democracies.

Keywords: parties · coalitions · government types · legislative voting

7.1 INTRODUCTION

Legislators are crucial actors in representative democracies. Their individual decisions determine the direction of lawmaking, turning legislative voting into an important element of democratic process and representation (Martin, Saalfeld, and Strøm 2014). Voting records can thus be a source of valuable information making it possible to understand better not only the policy outputs, but also the dynamics leading to their emergence. Yet, only in the last two decades has the study of legislative voting started to expand intensively beyond the US Congress (Poole and Rosenthal 1997) to include also the European Parliament (Hix, Noury, and Roland 2006; Hix, Noury, and Roland 2007), national-level legislatures outside the US (e.g. Godbout and Høyland 2011a,b; Lyons and Lacina 2009; Spirling and McLean 2007; see Hug 2013 for an overview) and even the United Nations General Assembly (Voeten 2000).

In general, voting in legislators can be motivated by two different principals. On the one hand, legislators are independent actors who can vote according to their own beliefs. On the other hand, this independence of legislators is often restricted due to strategic considerations in modern party politics and coalition agreements. Governments and coalitions would be unlikely to persist when party factions are not able to form stable voting blocs for a longer time period. As a consequence, high levels of vote unity have been observed in parliamentary democracies suggesting that legislators almost always follow the line of their party and deviating voting behavior occurs rarely (Kam 2009; Sieberer 2006). However, while this research suggests that the parliamentary voting behavior of individual legislators is driven by their party membership, less is known about the systematic formation of voting blocs between parties in parliamentary systems. That is, are ideologically contiguous parties more likely to vote similar in parliaments or is the position taken by parties in legislators driven by strategic considerations, for example, by their status as government or opposition party? In this article, we address this research question.

More precisely, we analyze the position of parties based on their legislative voting record in the Czech Republic by employing spatial models of parliamentary voting, which have become "the workhorse theory

of modern legislative studies" (Cox 2001, 189). These scaling methods estimate legislators' ideal points based on their voting record in parliament (Carroll and Poole 2014; Poole 2005). In the US Congress, these ideal points can function as an accurate reflection of individual legislator's position in a low-dimensional policy space (Poole and Rosenthal 1997). Such an interpretation of ideal points is, however, not always accurate outside the US context (Rosenthal and Voeten 2004; Spirling and McLean 2007). In parliamentary systems, ideal-points and dimensions revealed by these models can capture both, the government-opposition divide and the ideological position of parties (Bräuninger, Müller, and Stecker 2016). Hence, a question arises about the conditions fostering specific voting patterns and the time at which these patterns change. This problem was addressed by Hix and Noury (2016), who recently provided a comprehensive comparative analysis of the voting behavior in several legislatures differing with regard to their institutional context (see also Coman 2015; Louwerse et al. 2016). They find that voting in legislatures is most often dominated by government-opposition dynamics and not by ideological positions such as the left-right placement of parties. The latter is only dominant under very specific institutional settings "namely, in presidential systems with coalition governments and in parliamentary systems with minority governments" (Hix and Noury 2016, 2).

This paper builds on the study by Hix and Noury (2016). However, instead of comparing the revealed ideal points of deputies between various countries and at different time-points, we keep the overall context as stable as possible. In order to secure the comparability between the analyzed cases we have collected comprehensive voting records of Czech legislators. The Czech Republic offers an ideal setting for our analysis as it is characterized by comparatively frequent changes in the type of government (Hloušek and Kopeček 2008). Government turnovers from majority to minority status (or vice versa), even within a single legislative period, are frequent occurrences. Our data covers the complete voting records of legislators since 1996 allowing for the analysis of 18 years of legislative voting. The collected data makes it possible to validate, specify and extend the findings reported in Hix and Noury (2016). In particular, the frequent change between majority and minority governments enables us to analyze directly how the change of the

institutional context affects a parties' voting behavior in legislatures. Moreover, the wide variety of government-types observed in the Czech Republic allows to provide a more detailed picture of these effects for different types minority governments and caretaker governments. That is, we overcome the *majority vs minority* government dichotomy and instead differentiate between *majority, formal minority, substantive minority and caretaker* governments. Simultaneously, the article provides the first comprehensive analysis of parliamentary voting patterns in the Czech Republic. So far, only a few studies analyzed the Czech Republic and relied on small subsets of the available voting records (Lyons and Lacina 2009; Noury and Mielcova 2005).

We find that government-opposition dynamics best explain the patterns of voting in legislatures when a majority government exists. In contrast, left-right differences between parties become more relevant when a substantive minority or caretaker government is in power. When exceptions are found, they can be easily explained in a detailed analysis considering specific circumstances in which a given government functioned.

The rest of the paper is structured as follows. First, we briefly discuss the theoretical debate on the relationship between the institutional context and voting in legislatures and formulate some basic hypotheses. We then describe the collected data and our methodological approach. In the following section we offer an interpretation of parties' ideal points estimated under different types of government. This is complemented by the explanation of votes within a framework of a series of regression models using either the left-right position of a party or belonging to the governing party as explanatory variables (see Hix and Noury 2016). Finally, we reflect upon the scientific relevance of our core findings.

7.2 TYPES OF GOVERNMENTS AND PARLIAMENTARY VOTING

In this article, we adopt a longitudinal perspective which makes it possible to compare legislative voting patterns between different units of analysis, while keeping the overall institutional context constant. This approach shares crucial characteristics with a case study about the

Czech Republic presented in the analysis of Hix and Noury (2016). While the approach of Hix and Noury (2016) is particularly helpful to analyze the effects of different political systems (presidential vs parliamentary systems), we think that variation in the institutional context of a parliamentary system is best studied in a longitudinal design, where are most of the other institutional factors can be held constant. We provide such an analysis for the effect of different government-types in the context of the parliamentary system of the Czech Republic. Below we explain what patterns we expect to find under different types of government.

7.2.1 *Majority Governments*

We start our discussion of government types with majority governments. These are typically characterized by consisting of one or more parties which hold a majority of seats in the parliament. Majority governments are thus able to form majorities for each vote and do not rely on the support of opposition parties as long as the governing parties vote cohesively. In these cases, standard assumptions about parliamentary voting are likely to be violated (Spirling and McLean 2007), meaning that legislators do not necessarily vote for the option which is closest to their ideal points. Instead, under a majority government, parties and legislators are likely to act strategically. Government parties will vote together in order to secure their majority. Opposition parties, in contrast, have also strong incentives to vote together regardless of their ideological differences (Dewan and Spriling 2011; Kam 2014). This implies that not only government parties are likely to vote as a bloc, but also that opposition parties cast the same vote "strategically to defeat the government" (Spirling and McLean 2007, 8).[1] Therefore, majority governments are likely to produce government-opposition cleavages instead of left-right voting patterns.

1 It is important to note that we discuss the general patterns of parliamentary voting and that exceptions to this rule are likely for example due to rebels who tend to vote more sincerely (Spirling and McLean 2007) or due to "free votes" in which no means of party discipline are employed. Yet, these exceptions should not affect the overall positioning of parties.

7.2.2 *Minority Governments*

Minority governments are usually defined in terms of parliamentary representation of constituting parties. By definition, minority governments consist of too few legislators to form a majority in parliament without the help of other legislators (Kalandrakis 2015, 309). Furthermore, it is assumed that all parties whose representatives hold minister positions in the cabinet belong to a minority government. It is, nevertheless, important to go beyond these general characteristics and to differentiate between two variations of minority governments. As described by Strøm (1990) we can distinguish between *formal* and *substantive* minority governments. The former concept describes governments which enjoy support of one or more opposition parties (or independent legislators) allowing them to obtain the parliamentary majority on a regular and reliable basis. Substantive minority governments, on the other hand, have either no formal support of other parties or the support of other parties is still not sufficient to form a majority. One might think of substantive minority governments as "true" minority governments, while formal minority governments resemble majority governments. Although substantive minority governments occur more frequently in western democracies (Mitchell and Nyblade 2008), both forms of minority government are relevant for our study as their distinctive characteristics can help us explain the results we observe in the Czech Republic.

The common characteristic of minority governments is their inability to form a majority on their own. In order to obtain a majority of votes in parliaments, minority governments have to look for allies among other parties at each vote (Laver and Schofield 1992; Tsebelis 1995). This holds true especially for substantive minority governments, as they cannot rely on the ongoing support of other legislators. Under these circumstances, it is reasonable to expect that the minority government seeks a minimal connected winning-coalition at each vote (Axelrod 1970). Both the government and the cooperating opposition party benefit from the collaboration. The government parties have to adjust their positions only as long as it is necessary to obtain a majority, while the cooperating opposition parties have the opportunity to shape politics according to their own preferences. This trade-off has some lim-

itations as highlighted by Strøm, since "the greater the opportunities for the parliamentary opposition to influence legislative policymaking, the lower the benefits of governing" (Strøm 1984, 212). However, this does not influence the assumption that cooperation is most likely between parties of close ideological proximity. Put differently, legislative voting patterns in parliaments under substantive minority governments are likely to reflect the ideological positions of parties. Thus, we can expect the dominant cleavage in parliaments under substantive minority governments to be the left-right dimension (similar to Hix and Noury 2016, 6).

7.2.3 *Caretaker Governments*

In contrast to minority governments, caretaker governments have attracted only little attention of political scientists (for a discussion of Czech caretaker governments see Hloušek and Kopeček 2014), maybe due to the assumption that caretaker governments "usually do not intend to undertake any serious policy making during their stay in office" (Müller-Rommel, Fettelschoss, and Harfst 2004, 877). Yet contested voting also takes place under caretaker governments and since we identify three cabinets in the Czech Republic belonging to this category, it is important to analyze their effects on representation. As highlighted by Conrad and Golder "we know surprisingly little about the consequences of these caretaker governments, not because they are theoretically uninteresting, but because most datasets largely ignore them" (Conrad and Golder 2010, 120). Caretaker governments are usually formed for a relatively short period of time when the composition of parliament makes the appointment of a classical, partisan government impossible. Their main objective consists in managing the daily state affairs until the new parliament is elected. Strøm defines caretaker governments as "nonpartisan" (Strøm 1990, 7) as they are led by cabinet members who do not act as party representatives. However, even a caretaker government is elected by a parliamentary majority in the vote of confidence. Yet, the coalition formed to elect the cabinet is not necessarily ideologically coherent. Therefore, majorities on specific bills can be formed in the absence of coalition constraints and each party can

adjust its behavior based on its own policy preferences. Hence, the behavioral consequences of caretaker governments should be similar to those observed under the substantive minority governments.

7.2.4 *Overview of Ideal Types and Formulation of Hypotheses*

The four aforementioned types of governments can be classified with respect to two dichotomously coded theoretical dimensions. The first dimension displayed in the rows of Table 7.1 reflects the number of seats the cabinet parties hold in the parliament. When it is sufficient to secure the absolute majority of votes in a vote of confidence we may speak of either majority or caretaker government. If, on the other hand, the ruling parties control fewer than 50% plus 1 parliamentary seats the government in question is either a substantive or a formal minority. The second dimension is more difficult to operationalize as assignment of a government to one of the two categories depends on existence (or lack) of a mechanism (formal or informal) making it possible to generate stable and reliable majorities in parliamentary votes. With respect to the second dimension we differentiate between majority and formal minority governments on the one hand, and substantive minority and caretaker governments on the other. While the former types can rely on mechanisms securing majority, the latter are forced to build majorities on a vote by vote basis.

Table 7.1: Classification of government types based on majority in vote of confidence and vote by vote majority building.

		"Vote by Vote" Majority Building	
		Yes	No
Absolute Majority in vote of confidence (based on cabinet parties)	Yes	Caretaker (LR)	Majority (GO)
	No	Substantive minority (LR)	Formal minority (GO)

The second of the two theoretical dimensions we use in our classification scheme has important observable consequences for parliamentary behavior of legislators. Hence, what matters most is not a formal minority or majority status based on strength of cabinet parties, but the

actual size of the parliamentary majority which repeatedly supports the government. We expect that informal agreements with other parties or legislators result in similar patterns of behavior as formal coalition contracts. We can then expect the parliamentary voting patterns under formal minority governments to resemble majority governments as both government types command the parliamentary majority on regular and relatively stable basis (Godbout and Høyland 2011a, 462). Consequently, our first hypothesis reads as follows:

H1a: *The government-opposition divide explains parliamentary voting patterns under formal minority governments and majority governments.*

The broad agreement between many parties to build a caretaker government does not, on the contrary, lead to the emergence of the new government block. We rather expect the opposite; both caretaker governments and substantive minority governments will be forced to seek support for their bills on a vote by vote basis, which will lead to development of minimal connected winning coalitions. The observable consequence of this development will be the emergence of the left-right spectrum as the main dimension of parliamentary voting as suggested by the hypothesis H1b:

H1b: *Left-right positions explain parliamentary voting patterns under caretaker governments and substantive minority governments.*

7.3 DATA AND METHODS

The data used in our study comes from several sources. Information on voting behavior of Czech legislators is publicly available on the website of the parliament.[2] Our study focuses on the lower house of the Czech Parliament, the Chamber of Deputies, as it plays the most important role in the legislative process and attracts most of the national media attention. The data on all roll-call votes was collected using web scraping techniques implemented in R (see e.g. Munzert et al. 2015).[3]

2 E.g.: http://www.psp.cz/sqw/hlasy.sqw?g=45031

3 The data is available at request for the purpose of replication and will be made publicly available in the near future.

Focusing on voting behavior in the Czech Republic is an asset for two reasons. Firstly, the available voting records reach back to the founding of the Czech Republic in 1993. Due to the high incidence of missing data in the first parliamentary term, our study, however, takes into consideration all votes since the beginning of the second legislative period in 1996. Hence, instead of snapshots of selected cases, we can provide a complete longitudinal analysis of voting patterns. Secondly, almost all votes in the Czech Republic are recorded. This minimizes the potential selection bias due to strategic roll-call vote requests (Carrubba et al. 2006; Hug 2010). However, particularly in older legislative periods, not all information about the votes is available. Yet, it is important to highlight that this is a technical limitation concerning relatively few votes and the absence is not caused by parliamentary rules.[4] We can then assume these votes are missing randomly.

The core of our empirical analysis is based on the application of the Optimal Classification (OC) scaling technique (Armstrong et al. 2014; Poole 2000, 2005). We use OC for two reasons. First, it performs better in parliaments with high levels of party discipline which is the case in the Czech Republic. Alternative techniques, particularly W-NOMINATE (Poole et al. 2011), can produce less reliable estimates under such conditions (Armstrong et al. 2014; Rosenthal and Voeten 2004). Secondly, OC is applicable even when only relatively few votes are scaled. This is important due to the specific research design we employ. Each legislative period was split into several subsets of roll-call matrices, each consisting of 200 votes. We then applied OC to each of these subsets and computed the mean ideal point estimate based on party membership on the first dimension.[5] These position estimates for the main political parties are then displayed next to each other in the chronological order for every single legislative period. The change of cabinet is indicated in the graphs by a dashed vertical line. This allows us to analyze the stability of voting patterns within cabinets and to trace when voting patterns began to change. We can then immediately observe whether these changes overlap with changes in the government type.

4 In other words, all votes were originally recorded but the results were not uploaded to the webpage for whatever reason.

5 We computed two-dimensional OC models, but focus only on the first dimension in this article since it is the most relevant. Results for the second dimension can be sent upon request. Abstentions were treated as missing values, but results remain unchanged when treated as 'no'-votes.

Our approach has, admittedly, certain limitations. Most importantly, the party positions of one party cannot be compared between the roll-call subsets, meaning that an average OC party position of e.g. 0.7 in the first 200 votes and 0.8 in the next 200 votes does not necessarily imply that a party changed its position on that dimension. But, since we are interested in the relative position of parties with respect to each other within the roll-call subsets this limitation should not affect our analysis. Yet, in order to account for smaller changes in the estimates of party position, we use loess smoother, which simplifies the identification of general trends and abrupt changes in party positions (Jacoby 2000).

Probing deeper and in order to confirm our results, we analyze the individual vote decisions by legislators based on their party membership (see Hix and Noury 2016). For each vote we run an OLS regression in which the dependent variable denotes the voting decision of a legislator (linear probability model). As the independent variable we include either the government-opposition status or the left-right position of a legislators' party[6], i.e., we estimate models of the following form for each vote:

$$Y = \alpha + \beta_{LR} \times \text{LEFTRIGHT} \tag{7.1}$$

$$Y = \alpha + \beta_{GO} \times \text{GO} \tag{7.2}$$

Y is a dummy variable indicating the result of a vote (either Yes or No), whereas GO and LEFTRIGHT measure the government-opposition status and the left-right position of a given party, respectively. In the analysis presented in the main body of the paper we use the party position estimates provided by the Comparative Manifesto Project (CMP). In the appendix we offer, as an additional validity test of our findings, the regression results using the Chapel Hill Expert Survey (CHES) data which were not available for the whole period of time under review.[7] We then compare the explanatory power of the two variables (as implied by the average R^2 values). To secure the quality of our results we

6 This is slightly different to Hix and Noury 2015, in which both variables are included in the same regression analysis.

7 As displayed in the appendix, results remain stable when CHES data is used.

excluded votes in the regression analyses in which the minority size was smaller than 10%.

7.4 MAPPING THE POLICY SPACE

In this section we discuss the policy positions of legislators estimated using OC. Our longitudinal graphics have the advantage of showing the gradual shift of position over time, reflecting changes in the ruling coalition and government status. To improve the clarity of the figures we plot loess smoothers of the mean party position recorded at different points in time. We discuss each legislative period and cabinet separately, providing information on the specific circumstances which led to the government changes. Table 7.2 gives an overview over the cabinets in the analysis.

Table 7.2: Overview of Czech Governments (1996-2013)

PM	Party (PM)	Leg. Period	From	To	Majority (Ministers)	Majority (V.o.C.)	Type
Klaus 2	ODS	2	04.07.1996	02.01.1998	0	0	F. Minority
Tošovský	Ind.	2	02.01.1998	22.07.1998	0	1	Caretaker
Zeman	ČSSD	3	22.07.1998	15.07.2002	0	0	S. Minority
Špidla	ČSSD	4	15.07.2002	04.08.2004	1	1	Majority
Gross	ČSSD	4	04.08.2004	25.04.2005	1	1	Majority
Paroubek	ČSSD	4	25.04.2005	04.09.2006	1	1	Majority
Topolánek 1	ODS	5	04.09.2006	09.01.2007	0	0*	S. Minority
Topolánek 2	ODS	5	09.01.2007	08.05.2009	0	0**	F. Minority
Fischer	Ind.	5	08.05.2009	13.07.2010	1	1	Caretaker
Nečas 1	ODS	6	13.07.2010	17.04.2012	1	1	Majority
Nečas 2	ODS	6	17.04.2012	10.07.2013	1	1	Majority
Rusnok 1	Ind.	6	10.07.2013	25.11.2013	0	0*	Caretaker

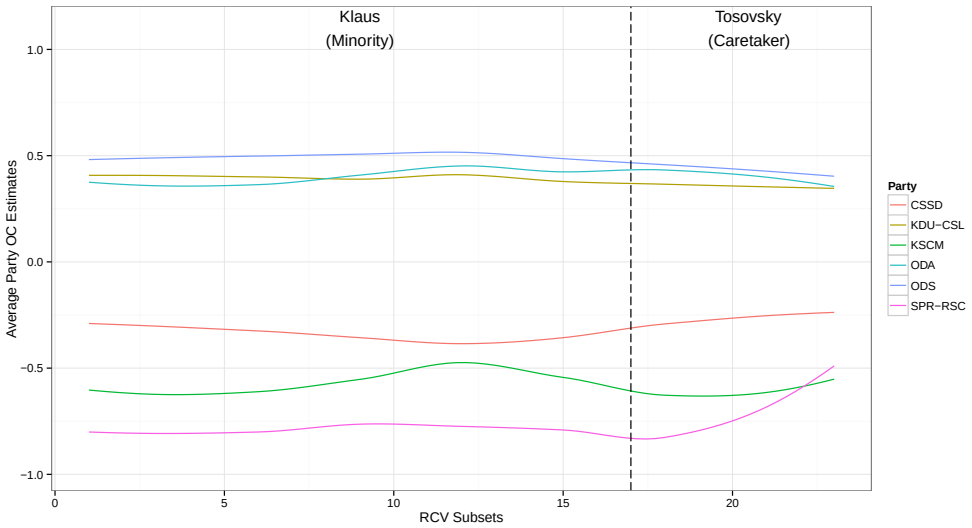
*Note: Majority Ministers indicates whether parties belonging to the coalition had more than 100 (of 200) seats in the Chamber. Majority V.o.C. indicates whether a government was supported by more than 100 MPs in the initial vote of confidence. * Motion rejected. ** The motion was supported by exactly 100 of 200 MPs.*

7.4.1 *The second Chamber of Deputies*

The Czech party system stabilized quickly after the democratic transition (Shabad and Slomczynski 2004, 156). Already by mid-90s, the conservative Civic Democratic Party (ODS) "had built up an organization that (...) included a nationwide network of local groups with well-resourced headquarters and professional regional and national structures" (Tavits 2012, 90). As a result, it became the most successful righ-of-the-center party. After the election of charismatic Miloš Zeman as its leader in 1993 (Hloušek and Kopeček 2008, 528), the Czech Social-Democratic Party (ČSSD) emerged as the major competitor of the ODS. Since the second legislative period (1996-1998) these two parties have dominated Czech politics.

From 1993 to 1998 the ODS was a senior coalition partner in two governments of Klaus. As mentioned above, we do not include the first Czech Chamber of Deputies (1993-1996) due to its transitional character and relatively high incidence of missing votes. The first parliament elected after dissolution of Czechoslovakia was the second Czech Chamber of Deputies. The center-right-coalition which ruled the country before the election remained in power. It lost, however, the majority of votes in the Chamber. Still, as reflected by the positions of parties in Figure 7.1, the ruling coalition consisting of the ODS, the minor Civic Democratic Alliance (ODA) and the Christian-Democratic Union-Czechoslovak People's Party (KDU-ČSL) remained a relatively coherent bloc for the entire legislative period. The opposition consisting of the ČSSD, the far-left Communist Party of Bohemia and Moravia (KSČM) and the far-right Coalition for Republic – Republican Party of Czechoslovakia (SPR-RSČ) appears at the lower end of the figure. Positions of parties remain relatively stable after the breakdown of the coalition and its replacement by the caretaker government headed by Josef Tošovský in January 1998.

Figure 7.1: Position of Czech parties in the second Chamber of Deputies (1996-1998)



The results of regression analyses indicate a shift between the relevance of the government-opposition status and the left-right placement in the direction consistent with our theoretical expectations. Considering the fact that the opposition was badly divided and the government controlled 99 of 200 seats in the parliament, we assume that the cabinet of Klaus is an example of a formal minority cabinet. Both the results of position estimation and regression analyses confirm our expectations related to formal minority. The explanatory power of the government-opposition variable amounts to 58% and is thus higher than the explanatory power of the left-right measure amounting to 49%. The situation changed after the cabinet of Klaus was replaced by the government of Tošovský. The explanatory power of left-right placement remains relatively high (44%), but the government-opposition dummy is able to explain only 29% of variance in data.

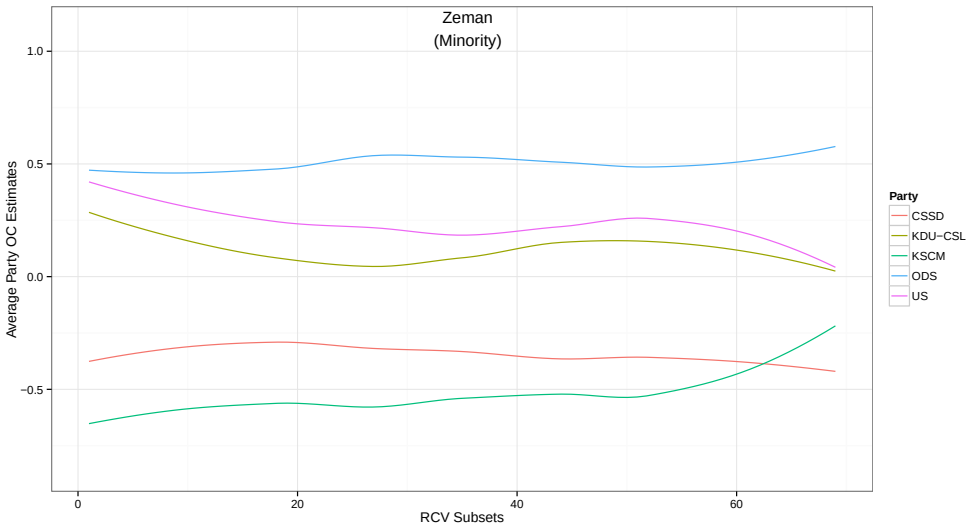
In contrast to the assumption of caretaker governments as being "non-partisan", the government of Tošovský consisted of members of the ODA, the KDU-ČSL and former members of the ODS, who created a new party Freedom Union (US), hence we coded these factions as "government". The creation of the government, nevertheless, relied on the support of the ČSSD in the vote of confidence, which was officially part of the opposition (Kopecky and Mudde 1999, 416). However, the ČSSD supported the new government only in the vote of confidence,

but not in other roll-call votes. Due to the partisan character of the new cabinet, voting patterns remained stable and resemble those observed under the cabinet of Klaus.

7.4.2 *The third Chamber of Deputies*

The early election in 1998 brought to power the ČSSD which became the biggest parliamentary faction. The party was, however, unable to find coalition partners and created a minority cabinet under Miloš Zeman. In spite of its minority status it proved, nevertheless, more stable than its predecessor. A reason for that was an "opposition agreement" (*opoziční smlouva*) between the ČSSD and the ODS, its principal component being "that the ODS would neither instigate nor support a no-confidence vote against the ČSSD minority government" (Plecitá-Vlachová and Stegmaier 2003, 773). The price for the support for the government in the vote of confidence was the election of the conservative leader and former PM, Václav Klaus, to the position of the parliament's president. The opposition agreement did not, however, guarantee support for the government in all votes, therefore the cabinet of Zeman can hence be considered as an example of substantive minority government.

Figure 7.2: Position of Czech parties in the third Chamber of Deputies (1998-2002)



The structure of the Czech policy space during the third legislative period conforms to what could be expected when a substantive minority government is in power. We can hence confirm findings of Hix and Noury (2016) who use the cabinet of Zeman as a case study. As displayed in Figure 7.2 the dimension best explaining voting behavior of Czech legislators under the premiership of Zeman is the position of their parties on the left-right scale. The conservative ODS appears in the upper section of the plot. The liberal US is located slightly lower than the ODS and builds one cluster with the centrist KDU-ČSL. In the lower section of the graphic we find the left-of-the-center ČSSD and the far-left KSČM.

Consistent with H1b, under the substantive minority cabinet of Zeman the left-right-placement of parties explains legislators' voting behavior better than their government-opposition status. The average R^2 in the regression models using the left-right position as independent variable amounts to 38% while the government-opposition dummy is able to explain only 34% of variance in data.

7.4.3 *The fourth Chamber of Deputies*

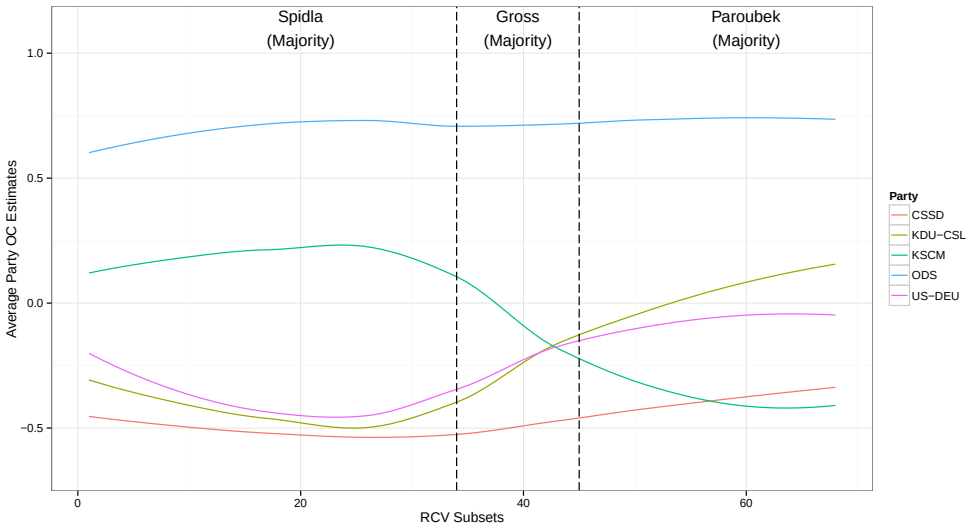
After the 2002 elections the Social-Democrats were finally able to form the majority coalition. They were joined in the government by two centrist parties, the KDU-ČSL and the US-DEU. The latter was an expanded US which merged with a minor liberal Democratic Union (DEU). The majority government survived the whole legislative period, it was, however, weakened by the resignation of the first PM, Vladimír Špidla, and the corruption scandal which led to the replacement of his successor, Stanislav Gross, by Jiří Paroubek (Plecitá-Vlachová and Stegmaier 2003, 180).

The crises in the government are well reflected by party positions displayed in Figure 7.3. Under Špidla we can observe the typical government-opposition divide. The three parties of the ruling coalition appear close to each other in the lower section of the graphic. The conservative ODS loads on the opposite side of the political spectrum. Between the center-left government and the right-of-the-center opposition appears the far-left KSČM. The placement of the KSČM should not be overemphasized

since it is more anti-systemic than all other factions, which followed the policy of its isolation (Hloušek and Kopeček 2008, 527). Such parties do not fit easily into the existing policy space (Bakker et al. 2014). Moreover, radical legislators tend to vote more sincerely (Spirling and McLean 2007), which means that they less often vote strategically and are more willing to express their "true" ideological position. This implies that legislators of the KSČM might sometimes prefer to vote with the government instead of casting the same vote as the conservative opposition ODS.[8] Finally, a more detailed analysis reveals that KSČM is the only party relevant for the second OC dimension (see Appendix). The differences between the KSČM and all other parties on the second dimension diminished after Communists changed their voting behavior with the beginning of the Gross cabinet.

Simultaneously, the minor coalition parties shifted their positions on the first dimension towards the conservative opposition. Under Paroubek this process is completed, as parties occupy the first dimension with respect to positions consistent with their left-right placement.

Figure 7.3: Position of Czech parties in the fourth Chamber of Deputies (2002-2006)



8 In the appendix all plots are provided with the observed data points and without loess smoother. Here it becomes even clearer that in some roll-call vote subsets the KSČM voted with the ODS whereas and in others KSČM is placed between the government and opposition. This corroborates our impression that KSČM did not follow a clear voting pattern. With the cabinet change from Špidla to Gross, however, KSČM voting patterns shifted.

The shift observable in the OC plot is reflected by the regression results. Under the first coalition cabinet headed by Špidla the government-opposition performs better than left-right placement, explaining 56% and 43% of variance respectively. This holds also for the transition period under Gross (51% government-opposition and 45% left-right). The structure of the policy space under Paroubek contrasts with what may be expected under majority government, but corresponds with our OC findings discussed above. The explanatory power of the left-right-placement surpasses the explanatory power of the government-opposition distinction with 61%, the latter amounting only to 36%.

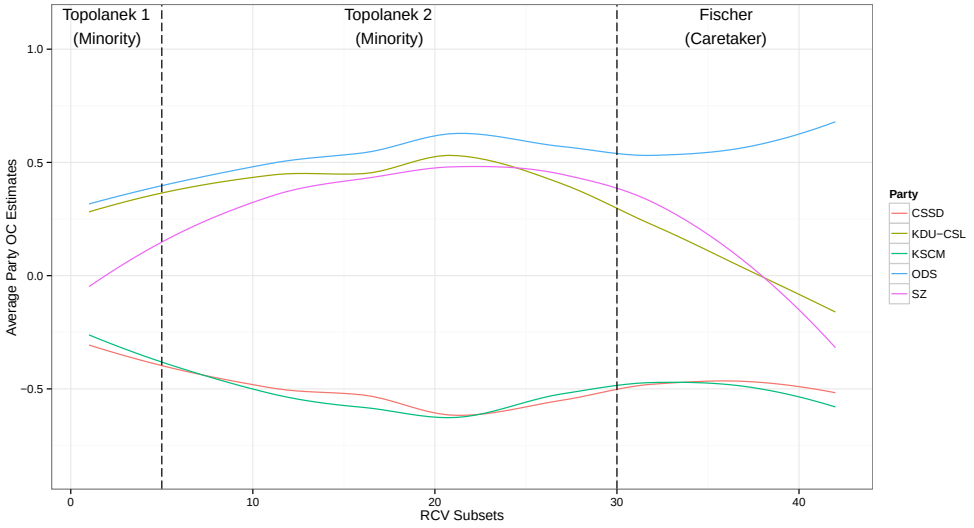
This observed shift in party positions is inconsistent with the theoretical expectation of government-opposition voting under majority governments. Yet, this exception can be explained by the severe crisis of the coalition under the premiership of Gross. The crisis led to a situation which might be best described as a "quasi caretaker government" under Gross and Paroubek. The coalition partners agreed on building the cabinet but they distrusted each other, which might be best illustrated by the severe crisis under Gross "when the KDU-ČSL threatened to leave the coalition unless Gross resigned" (Plecitá-Vlachová and Stegmaier 2003, 180). The process of weakening the coalition was further reinforced by the prospect of upcoming elections. Parties used the remaining time to reposition themselves based on their left-right placement in order to demonstrate to voters their "true" policy positions. The example of the position shift observed among parties in the fourth Czech Council of Deputies is interesting as it indicates that the effect of institutional factors may sometimes be suppressed by "external shocks" such as corruption scandals.

7.4.4 *The fifth Chamber of Deputies*

After the parliamentary election 2006 the conservative ODS became the strongest party, but it initially did not manage to create a coalition government. The consequence was an emergence of the short-lived substantive minority government headed by the leader of the ODS, Mirek Topolánek, which existed from September 2006 to January 2007. In that period, the positions of parliamentary factions correspond roughly

with their placement on the left-right-scale. As observable on the left-hand side of the Figure 7.4, the ruling ODS is positioned next to the KDU-ČSL. The opposite pole consists of two left-of-the-center parties, the ČSSD and the KSČM. In the middle of the policy space appears the environmentalist Green Party (SZ). The observations based on inspection of party position estimates are confirmed by the regression analyses. The explanatory power of the left-right placement amounts to 32% and thus exceeds the explanatory power of the government-opposition distinction equal to 27%.

Figure 7.4: Position of Czech parties in the fifth Chamber of Deputies (2006-2010)



The establishment of the coalition government consisting of the ODS, the KDU-ČSL and the SZ resulted in the emergence of a structure consisting of two party blocs. The second cabinet of Topolánek was, however, formally still a minority government as it controlled exactly 50% of seats in the Chamber of Deputies. The most interesting development observed between Topolánek's first and second cabinet is the shift of the SZ away from the left-of-the-center parties and towards its new coalition partners. In spite of the formal minority status the voting behavior of legislators resembles that found under majority governments. This conclusion is confirmed by the regression results. The average R^2 of the government-opposition dummy equals now to 76% and offers

thus better illumination of voting behavior than the left-right position of parties explaining 70% of variance in data.

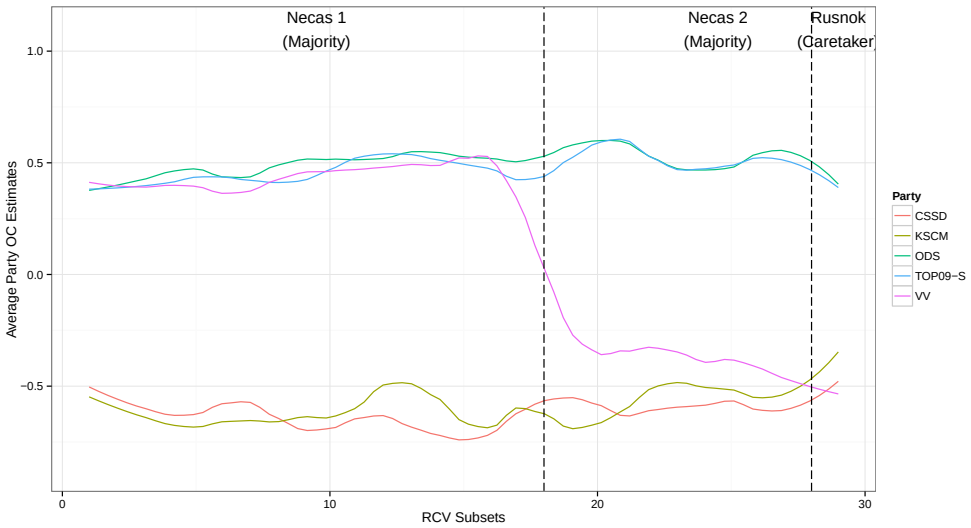
The second cabinet of Topolánek survived four votes of no-confidence, but lost narrowly the fifth no-confidence vote in March 2009 (Stegmaier and Vlachová 2011, 238). It was then replaced by the caretaker government under the premiership of Jan Fischer. During that period parties shifted their positions. Their left-right placement offers once more the best explanation of legislators' voting behavior. The conservative ODS and the communist KSČM occupy now the opposite poles of the policy space. The centrist KDU-ČSL and the Greens move towards the Social-Democrats who are placed slightly closer to the center of the policy space than the Communists. The left-right variable explains 69% of variance in legislator's voting decisions whereas the explanatory power of the government-opposition divide is reduced to 18%. In spite of the transitional character of the government of Fischer, its ministers were nominated by parties, the ODS, the ČSSD and the SZ. Hence, these three parties were coded in our regression analysis as "government" while all others were considered to be part of the opposition.

7.4.5 *The sixth Chamber of Deputies*

The sixth Chamber of Deputies is the last Czech parliament for which we collected complete voting records. During this legislative period we may observe the effects of changes in the composition of the ruling coalition which, however, did not result in change of the government status. After the 2010 parliamentary elections the ODS formed a coalition with two new parties, the liberal-conservative Tradition Responsibility Prosperity (TOP-09) and the populist law-and-order party Public Affairs (VV). The leader of the ODS, Petr Nečas, became the Prime Minister. Due to the erosion of popular support for the VV, its two cabinet ministers resigned their cabinet posts and pressured the party to exit the coalition (Stegmaier and Linek 2014, 386). It led to a split in the party. Former members of the VV created a new grouping, Liberal-Democrats (LIDEM) (recorded in parliamentary votes as independents) which replaced the VV in the coalition with the ODS and the TOP-09. This change is reflected by the dramatic shift in the position of the

remaining VV whose legislators move towards the positions of the left-of-the-center opposition (Figure 7.5).

Figure 7.5: Position of Czech parties in the sixth Chamber of Deputies (2010-2013)



Both under Nečas 1 and Nečas 2 the government-opposition distinction explains legislators' voting decisions better than the left-right-placement of parties. The explanatory power of the CMP rile variable is equal to 66% (Nečas 1) and 63% (Nečas 2). The government-opposition dummy performs better in both cases explaining 77% and 72% of variance in data, respectively. During the short period of the Rusnok's caretaker cabinet the VV continued its shift away from its former coalition partners. The three parties, VV, ČSSD and KSČM supported Rusnok's motion for the parliament's confidence and can hence be considered as quasi government parties. Under this assumption the government-opposition performs better under the premiership of Rusnok than the left-right-placement. It explains 63% of variance in data while the left-right placement is able to account only for 50%. This contrasts with our theoretical expectations, but may be the effect of the fact that the three parties did not nominate members of the government as it was practiced in case of previous caretaker governments. Furthermore, their common support for Rusnok remained virtually symbolic and without consequences, since his cabinet lost the vote of confidence and was never confirmed by the parliament (Stegmaier and Linek 2014, 386).

Table 7.3: Summary of Regression Results

PM	Variable	Number of Votes	Mean R^2	Std. Dev.	Lower CI	Higher CI
Klaus 2	Left Right	2129	0.49	0.27	0.48	0.51
Klaus 2	Government Opposition	2129	0.58	0.33	0.57	0.6
Tosovsky	Left Right	838	0.44	0.24	0.43	0.46
Tosovsky	Government Opposition	838	0.29	0.18	0.27	0.3
Zeman	Left Right	7777	0.38	0.26	0.37	0.38
Zeman	Government Opposition	7777	0.34	0.24	0.33	0.35
Spidla	Left Right	3547	0.43	0.28	0.42	0.44
Spidla	Government Opposition	3547	0.56	0.32	0.55	0.57
Gross	Left Right	1128	0.45	0.3	0.43	0.47
Gross	Government Opposition	1128	0.51	0.33	0.49	0.53
Paroubek	Left Right	2185	0.61	0.3	0.6	0.62
Paroubek	Government Opposition	2185	0.36	0.25	0.34	0.37
Topolanek 1	Left Right	448	0.32	0.27	0.29	0.35
Topolanek 1	Government Opposition	448	0.27	0.25	0.25	0.3
Topolanek 2	Left Right	2194	0.7	0.24	0.68	0.71
Topolanek 2	Government Opposition	2194	0.76	0.29	0.74	0.77
Fischer	Left Right	1088	0.69	0.27	0.68	0.71
Fischer	Government Opposition	1088	0.18	0.18	0.17	0.19
Necas 1	Left Right	1643	0.66	0.23	0.65	0.68
Necas 1	Government Opposition	1643	0.77	0.29	0.75	0.78
Necas 2	Left Right	1119	0.63	0.24	0.62	0.65
Necas 2	Government Opposition	1119	0.72	0.29	0.7	0.73
Rusnok 1	Left Right	112	0.5	0.29	0.45	0.55
Rusnok 1	Government Opposition	112	0.63	0.31	0.57	0.69

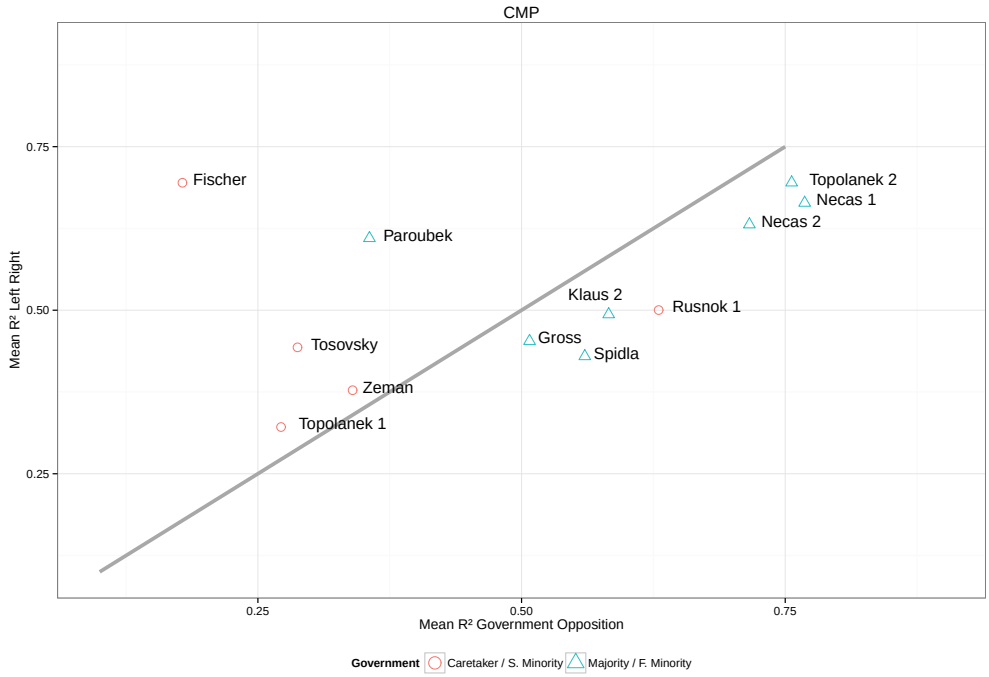
7.5 THEORETICAL IMPLICATIONS AND CONCLUSION

The positions of Czech parties correspond with our expectations about voting patterns under different government types. Under substantive minority governments and most caretaker governments the explanatory power of the left-right placement of parties surpasses the explanatory power of the variable reflecting their government-opposition status. The opposite is true in case of most majority governments and all formal minority governments. We find only two noteworthy exceptions from the aforementioned rule. One is the majority coalition under Paroubek and the other the caretaker government we describe as Rusnok 1 in order to differentiate it from its continuation during exceptionally long coalition negotiations after the 2013 elections. In both cases important external factors not related to the government status may be

responsible for the deviant results. External shocks such as distrust between coalition partners due to past corruption scandal (Paroubek) or bitter animosity between VV and its former coalition partners (Rusnok 1) modify the structure of the policy space in unexpected directions. In case of Rusnok 1 we must also mention the low number of scalable votes we could use to obtain our OC estimates.

In Figure 7.6 we summarize the results of the regression analyses, by plotting the average R^2 values of the government opposition and left right variables against each other (see also Table 7.3). All substantive minority governments and caretaker governments except for Rusnok 1 are placed above the diagonal. This means that voting behavior of legislators during the existence of these cabinets is better explained by the left-right placement of their parties than their government-opposition status. The opposite is true for cabinets situated below the diagonal. In their case the government-opposition distinction explains parliamentary votes better than the left-right placement. The cabinet of Paroubek is the only one for which we would expect higher explanatory power of government-opposition not located in the section of the plane below the diagonal. In the appendix to this paper, we provide the results of the same analysis using the CHES data as independent variable (which is not available for all legislative periods under consideration). The results are very robust compared to the CMP data. The mean R^2 values of CMP and CHES data correlate with $r = 0.9$.

Figure 7.6: Comparison of the explanatory power (mean R^2) of the left-right placement and the government-opposition status for different types of Czech governments



Note: Line in the plot does not display OLS fit, but the diagonal (x=y). Cabinets above the line show a higher average R^2 for Left Right compared to Government Opposition.

The results are consistent with theoretical expectations formulated in H1a and H1b. The two exceptions from the rule we identified can be related to the influence of specific external factors. As we have shown crucial is not the formal status of the government, but its effective reliance on stable parliamentary majority. The majority should furthermore be constantly available rather than emerge just on one occasion, e.g. at the vote of confidence. Furthermore, the results have more general implications for the analysis of parliamentary voting. The extreme shifts of party positions due to government turnovers imply that it is important to estimate party positions based on the respective government type and not for complete legislative periods. In the latter case, different voting patterns have to be fit into a single model, which can increase the dimensionality and make the interpretation of party positions more challenging. However, our results suggest that voting patterns during a cabinet's term are quite stable, implying that legislative voting is mostly influenced by the relationship of a party to the government. Further, al-

though government types can explain voting patterns very often, they do not determine them. This is highlighted by the observed exceptions to the expected voting patterns, which could be traced back to the specific political circumstances.

Our results also suggest that it makes sense to differentiate between subtypes of minority governments based on their ability to create relatively stable majorities. Only if this is not the case, can we expect voting patterns in line with left-right differences. Of course, distinguishing between formal and substantive minority governments must almost always be done based on an in-depth case analysis, taking into consideration all of the relevant information about the respective cabinet.

What's more, the analysis contributes to the discussion of a less studied type of government, the caretaker government. Our results indicate that cooperation between many factions, which is necessary for the emergence of caretaker governments, does not implicate the emergence of a government-opposition divide. On the contrary, a caretaker government is rather a marriage of convenience. During its existence, parties' parliamentary voting patterns follow ideological considerations and are less strategically motivated.

Finally, the limitations of our study have to be highlighted. We focus in this paper on only one country in order to increase the explanatory power by keeping the overall context as stable as possible. This may, however, raise questions about the generalizability of our results to other political contexts. Therefore, we advocate more research on longitudinal legislative voting patterns in other countries and between countries. Furthermore, we are only able to demonstrate that under specific conditions the positions *of parties* follow left-right differences. Yet, it is not clear whether this holds true for the placement of legislators *within parties*. These questions should be addressed in future research.

Part IV

APPENDIX

A

APPENDIX FOR 'ARE POPULIST PARTIES FOSTERING WOMEN'S POLITICAL REPRESENTATION IN POLAND? A COMMENT ON KOSTADINOVA & MIKULSKA'

A.1 RESULTS FROM THE PARTY PREFERENCE MODEL (LOGIT)

Table A.1: Logistic Regression

	2001	2005	2007	2011
Age	-0.0131	-0.0101	-0.00219	-0.00684
	(0.00437)	(0.00415)	(0.00369)	(0.00345)
District Magnitude	0.00492	0.00964	0.00429	-0.0318
	(0.0192)	(0.0201)	(0.0193)	(0.00984)
Position	0.0635	-0.00415	-0.0106	0.0259
	(0.0572)	(0.0427)	(0.0289)	(0.0210)
Position × Position	-0.00347	0.000346	-0.0000368	0.000192
	(0.00246)	(0.00144)	(0.000976)	(0.000725)
PSL	0.0473	-0.441	-0.755	-0.466
	(0.367)	(0.319)	(0.332)	(0.156)
PiS	0.0887	0.0872	-0.111	-0.776
	(0.363)	(0.322)	(0.258)	(0.195)
SLD	0.197	0.161	-0.133	-0.203
	(0.334)	(0.323)	(0.261)	(0.160)
PSL × Position	-0.0121	0.0585	0.0916	0.0621
	(0.0691)	(0.0511)	(0.0582)	(0.0256)
PiS × Position	-0.0334	-0.0183	-0.0127	0.0949
	(0.0773)	(0.0564)	(0.0411)	(0.0344)
SLD × Position	0.0916	0.0386	0.0307	0.0639
	(0.0626)	(0.0571)	(0.0408)	(0.0300)
PSL × Position × Position	0.00205	-0.00148	-0.00267	-0.00167
	(0.00286)	(0.00170)	(0.00211)	(0.000901)
PiS × Position × Position	0.00213	0.000730	0.000740	-0.00257
	(0.00328)	(0.00194)	(0.00128)	(0.00118)
SLD × Position × Position	-0.000860	-0.00105	-0.000871	-0.00256
	(0.00260)	(0.00206)	(0.00132)	(0.00109)
Constant	-1.234	-1.034	-1.139	0.0558
	(0.404)	(0.392)	(0.306)	(0.217)
Observations	3300	3382	3637	3661
Pseudo R^2	0.045	0.010	0.003	0.020
AIC	3437.1	3566.9	3668.7	4914.3
BIC	3522.6	3652.6	3755.5	5001.2

Standard errors in parentheses

A.2 RESULTS FROM THE VOTER PREFERENCE MODEL (OLS)

Table A.2: OLS Regression

	(1)	(2)	(3)	(4)
	2001	2005	2007	2011
2	-0.203***	-0.190***	-0.235***	-0.175***
	(0.0251)	(0.0268)	(0.0333)	(0.0346)
3	-0.214***	-0.232***	-0.260***	-0.201***
	(0.0273)	(0.0246)	(0.0321)	(0.0425)
4	-0.235***	-0.252***	-0.274***	-0.239***
	(0.0248)	(0.0234)	(0.0295)	(0.0316)
5	-0.242***	-0.264***	-0.297***	-0.259***
	(0.0272)	(0.0244)	(0.0290)	(0.0347)
6	-0.242***	-0.272***	-0.314***	-0.267***
	(0.0258)	(0.0225)	(0.0290)	(0.0323)
7	-0.255***	-0.278***	-0.321***	-0.272***
	(0.0238)	(0.0229)	(0.0288)	(0.0307)
8	-0.266***	-0.278***	-0.323***	-0.284***
	(0.0237)	(0.0237)	(0.0283)	(0.0313)
9	-0.267***	-0.291***	-0.330***	-0.295***
	(0.0241)	(0.0229)	(0.0277)	(0.0307)
10+	-0.277***	-0.299***	-0.334***	-0.301***
	(0.0236)	(0.0220)	(0.0279)	(0.0306)
Female	0.0219	0.0253	0.0561	-0.0208
	(0.0291)	(0.0438)	(0.0454)	(0.0419)
2 × Female	0.0269	-0.0111	-0.0486	0.0170
	(0.0391)	(0.0478)	(0.0485)	(0.0477)
3 × Female	0.00367	-0.0276	-0.0560	-0.00500
	(0.0426)	(0.0448)	(0.0479)	(0.0507)
4 × Female	-0.0159	-0.0274	-0.0554	0.00541
	(0.0321)	(0.0450)	(0.0446)	(0.0417)
5 × Female	-0.00815	-0.0270	-0.0781	0.00791
	(0.0341)	(0.0435)	(0.0448)	(0.0442)
6 × Female	-0.00114	-0.0368	-0.0615	0.00771
	(0.0308)	(0.0444)	(0.0458)	(0.0430)
7 × Female	-0.0160	-0.0200	-0.0414	0.0126

	(0.0295)	(0.0460)	(0.0465)	(0.0413)
8 × Female	-0.00369	-0.00753	-0.0473	0.00900
	(0.0296)	(0.0482)	(0.0477)	(0.0430)
9 × Female	-0.0163	-0.0245	-0.0492	0.0182
	(0.0291)	(0.0436)	(0.0450)	(0.0434)
10+ × Female	-0.0110	-0.0212	-0.0538	0.0170
	(0.0283)	(0.0428)	(0.0450)	(0.0419)
PSL	-0.0697*	-0.0359	-0.0586	-0.0379
	(0.0288)	(0.0280)	(0.0323)	(0.0333)
PiS	0.0473	-0.0127	0.0195	-0.0289
	(0.0368)	(0.0316)	(0.0418)	(0.0389)
SLD	-0.0114	0.0555	0.0204	0.0183
	(0.0356)	(0.0316)	(0.0347)	(0.0380)
2 × PSL	0.0723*	0.0223	0.0705	0.0231
	(0.0329)	(0.0344)	(0.0393)	(0.0400)
2 × PiS	-0.0182	0.0148	-0.00798	0.0360
	(0.0447)	(0.0390)	(0.0482)	(0.0478)
2 × SLD	0.0211	0.00911	-0.0124	-0.000108
	(0.0412)	(0.0402)	(0.0442)	(0.0487)
3 × PSL	0.0557	0.0394	0.0399	0.0248
	(0.0337)	(0.0321)	(0.0372)	(0.0459)
3 × PiS	-0.0584	0.00908	-0.0112	0.00983
	(0.0432)	(0.0351)	(0.0468)	(0.0517)
3 × SLD	0.0134	-0.0477	-0.0234	-0.0243
	(0.0391)	(0.0390)	(0.0407)	(0.0545)
4 × PSL	0.0697*	0.0401	0.0377	0.0137
	(0.0329)	(0.0312)	(0.0353)	(0.0358)
4 × PiS	-0.0526	0.0202	-0.0312	0.0288
	(0.0403)	(0.0340)	(0.0452)	(0.0426)
4 × SLD	-0.00465	-0.0550	-0.0309	-0.0277
	(0.0379)	(0.0365)	(0.0388)	(0.0411)
5 × PSL	0.0691*	0.0323	0.0530	0.0369
	(0.0342)	(0.0313)	(0.0344)	(0.0391)
5 × PiS	-0.0488	0.0140	-0.0212	0.0412
	(0.0412)	(0.0357)	(0.0441)	(0.0439)
5 × SLD	-0.000555	-0.0522	-0.0224	-0.0243
	(0.0395)	(0.0359)	(0.0380)	(0.0430)
6 × PSL	0.0534	0.0446	0.0739*	0.0361

	(0.0319)	(0.0298)	(0.0345)	(0.0361)
6 × PiS	-0.0602	0.0197	-0.00932	0.0206
	(0.0398)	(0.0335)	(0.0453)	(0.0415)
6 × SLD	-0.000956	-0.0580	-0.0120	-0.0332
	(0.0393)	(0.0336)	(0.0373)	(0.0403)
7 × PSL	0.0623*	0.0398	0.0651	0.0348
	(0.0297)	(0.0298)	(0.0341)	(0.0347)
7 × PiS	-0.0480	0.0133	-0.0177	0.0262
	(0.0390)	(0.0331)	(0.0436)	(0.0401)
7 × SLD	0.0173	-0.0487	-0.0198	-0.0357
	(0.0383)	(0.0348)	(0.0361)	(0.0393)
8 × PSL	0.0813**	0.0381	0.0628	0.0393
	(0.0306)	(0.0306)	(0.0332)	(0.0347)
8 × PiS	-0.0484	0.00730	-0.0249	0.0354
	(0.0379)	(0.0341)	(0.0430)	(0.0418)
8 × SLD	0.00974	-0.0701*	-0.0287	-0.0322
	(0.0371)	(0.0337)	(0.0358)	(0.0389)
9 × PSL	0.0696*	0.0468	0.0676*	0.0408
	(0.0303)	(0.0295)	(0.0326)	(0.0341)
9 × PiS	-0.0567	0.0196	-0.0146	0.0331
	(0.0379)	(0.0330)	(0.0430)	(0.0392)
9 × SLD	0.0128	-0.0607	-0.0226	-0.0247
	(0.0373)	(0.0330)	(0.0352)	(0.0384)
10+ × PSL	0.0757*	0.0424	0.0633	0.0452
	(0.0296)	(0.0285)	(0.0329)	(0.0337)
10+ × PiS	-0.0479	0.0140	-0.0205	0.0303
	(0.0377)	(0.0322)	(0.0424)	(0.0393)
10+ × SLD	0.0125	-0.0561	-0.0215	-0.0167
	(0.0365)	(0.0318)	(0.0352)	(0.0383)
Female × PSL	-0.0370	-0.0210	-0.149*	-0.0526
	(0.0339)	(0.0616)	(0.0604)	(0.0492)
Female × PiS	0.00270	-0.109	-0.130	0.0289
	(0.0566)	(0.0588)	(0.0708)	(0.0721)
Female × SLD	0.0847	-0.0136	-0.0346	0.0308
	(0.0691)	(0.0637)	(0.0700)	(0.0733)
2 × Female × PSL	-0.0231	-0.0274	0.147*	0.0590
	(0.0521)	(0.0669)	(0.0667)	(0.0556)
2 × Female × PiS	-0.0160	0.0770	0.109	0.00113

	(0.0645)	(0.0633)	(0.0731)	(0.0806)
2 × Female × SLD	-0.0908	-0.0566	0.0918	-0.0413
	(0.0814)	(0.0807)	(0.0862)	(0.0768)
3 × Female × PSL	-0.00338	0.00575	0.146*	0.0628
	(0.0527)	(0.0654)	(0.0622)	(0.0580)
3 × Female × PiS	0.0115	0.0965	0.110	-0.0242
	(0.0680)	(0.0596)	(0.0723)	(0.0811)
3 × Female × SLD	-0.137	0.000951	0.0958	-0.0189
	(0.0732)	(0.0667)	(0.0904)	(0.0858)
4 × Female × PSL	0.0263	0.0289	0.187**	0.0680
	(0.0402)	(0.0633)	(0.0626)	(0.0512)
4 × Female × PiS	0.00353	0.0921	0.146*	-0.0338
	(0.0612)	(0.0581)	(0.0724)	(0.0729)
4 × Female × SLD	-0.0713	0.0124	0.0190	-0.0208
	(0.0666)	(0.0658)	(0.0707)	(0.0782)
5 × Female × PSL	0.0376	0.00744	0.197**	0.0538
	(0.0411)	(0.0628)	(0.0637)	(0.0524)
5 × Female × PiS	-0.00682	0.121*	0.146*	-0.0420
	(0.0601)	(0.0592)	(0.0725)	(0.0756)
5 × Female × SLD	-0.101	0.00957	0.0569	-0.0366
	(0.0721)	(0.0647)	(0.0715)	(0.0751)
6 × Female × PSL	0.0267	0.0230	0.141*	0.0641
	(0.0359)	(0.0638)	(0.0611)	(0.0507)
6 × Female × PiS	-0.0138	0.112	0.126	-0.00907
	(0.0587)	(0.0594)	(0.0741)	(0.0731)
6 × Female × SLD	-0.0984	0.0101	0.0407	-0.0283
	(0.0701)	(0.0646)	(0.0732)	(0.0737)
7 × Female × PSL	0.0268	0.00607	0.144*	0.0390
	(0.0347)	(0.0640)	(0.0616)	(0.0493)
7 × Female × PiS	-0.0128	0.0927	0.126	-0.0317
	(0.0576)	(0.0590)	(0.0714)	(0.0727)
7 × Female × SLD	-0.106	-0.00381	0.0273	-0.0177
	(0.0704)	(0.0660)	(0.0706)	(0.0735)
8 × Female × PSL	0.0153	0.00625	0.144*	0.0526
	(0.0350)	(0.0655)	(0.0634)	(0.0510)
8 × Female × PiS	-0.0137	0.0887	0.123	-0.0335
	(0.0536)	(0.0625)	(0.0721)	(0.0738)
8 × Female × SLD	-0.107	-0.00472	0.0270	-0.0153

	(0.0687)	(0.0671)	(0.0719)	(0.0748)
9 × Female × PSL	0.0350	0.0116	0.147*	0.0519
	(0.0347)	(0.0604)	(0.0612)	(0.0508)
9 × Female × PiS	0.0119	0.108	0.120	-0.0344
	(0.0563)	(0.0585)	(0.0730)	(0.0716)
9 × Female × SLD	-0.0953	0.0148	0.0345	-0.0248
	(0.0682)	(0.0628)	(0.0696)	(0.0745)
10+ × Female × PSL	0.0239	0.0117	0.146*	0.0493
	(0.0335)	(0.0608)	(0.0603)	(0.0492)
10+ × Female × PiS	-0.00716	0.106	0.130	-0.0309
	(0.0562)	(0.0581)	(0.0705)	(0.0719)
10+ × Female × SLD	-0.0997	0.00987	0.0354	-0.0308
	(0.0690)	(0.0629)	(0.0698)	(0.0731)
District Magnitude	-0.00165***	-0.00127***	-0.00114***	-0.00123***
	(0.000127)	(0.0000968)	(0.0000980)	(0.000105)
Age	0.00167***	0.00165***	0.000483	0.000528
	(0.000346)	(0.000312)	(0.000387)	(0.000359)
Age × Age	-0.0000178***	-0.0000185***	-0.00000413	-0.00000505
	(0.00000418)	(0.00000377)	(0.00000455)	(0.00000409)
Constant	0.280***	0.296***	0.350***	0.318***
	(0.0248)	(0.0228)	(0.0275)	(0.0310)
Observations	3300	3382	3637	3661
R^2	0.691	0.768	0.770	0.744
Adjusted R^2	0.683	0.762	0.765	0.738

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

A.3 RESULTS FROM THE VOTER PREFERENCE MODEL (FRACTIONAL LOGIT)

A.3.1 *Regression Analysis*

Table A.3: Fractional Logit Regression

	(1)	(2)	(3)	(4)
	2001	2005	2007	2011
2	-1.386***	-1.133***	-1.419***	-1.044***
	(0.147)	(0.151)	(0.188)	(0.194)
3	-1.526***	-1.593***	-1.685***	-1.251***
	(0.181)	(0.152)	(0.189)	(0.270)
4	-1.810***	-1.885***	-1.891***	-1.707***
	(0.164)	(0.149)	(0.168)	(0.179)
5	-1.946***	-2.090***	-2.254***	-2.005***
	(0.220)	(0.182)	(0.167)	(0.252)
6	-1.944***	-2.262***	-2.668***	-2.168***
	(0.189)	(0.146)	(0.193)	(0.202)
7	-2.225***	-2.407***	-2.882***	-2.273***
	(0.157)	(0.162)	(0.191)	(0.192)
8	-2.504***	-2.411***	-2.960***	-2.614***
	(0.182)	(0.191)	(0.169)	(0.207)
9	-2.540***	-2.851***	-3.268***	-3.025***
	(0.174)	(0.208)	(0.159)	(0.222)
10+	-2.977***	-3.307***	-3.585***	-3.365***
	(0.158)	(0.132)	(0.175)	(0.194)
Female	0.0794	0.154	0.166	-0.115
	(0.139)	(0.205)	(0.184)	(0.195)
2 × Female	0.337	-0.0927	-0.0951	0.115
	(0.282)	(0.277)	(0.247)	(0.272)
3 × Female	0.169	-0.168	-0.208	-0.187
	(0.321)	(0.277)	(0.244)	(0.305)
4 × Female	0.0326	-0.197	-0.126	-0.108
	(0.317)	(0.254)	(0.273)	(0.247)
5 × Female	0.144	-0.187	-0.730**	-0.166
	(0.280)	(0.304)	(0.264)	(0.292)

6 × Female	0.228	-0.458	-0.323	-0.202
	(0.240)	(0.268)	(0.245)	(0.306)
7 × Female	0.0570	-0.0110	0.253	-0.0961
	(0.280)	(0.327)	(0.291)	(0.257)
8 × Female	0.363	0.238	0.134	-0.319
	(0.211)	(0.444)	(0.458)	(0.353)
9 × Female	0.0890	-0.122	0.128	0.0430
	(0.240)	(0.260)	(0.265)	(0.334)
10+ × Female	0.377*	0.0842	-0.0128	-0.181
	(0.163)	(0.175)	(0.200)	(0.199)
PSL	-0.367*	-0.150	-0.290*	-0.190
	(0.151)	(0.133)	(0.147)	(0.161)
PiS	0.233	-0.0324	0.0812	-0.151
	(0.174)	(0.152)	(0.186)	(0.190)
SLD	-0.0730	0.288*	0.0901	0.0947
	(0.173)	(0.141)	(0.153)	(0.181)
2 × PSL	0.391	0.0459	0.389	0.0729
	(0.217)	(0.205)	(0.223)	(0.234)
2 × PiS	0.0921	0.0487	0.0289	0.228
	(0.257)	(0.225)	(0.259)	(0.273)
2 × SLD	0.167	0.211	-0.0149	0.0642
	(0.249)	(0.216)	(0.263)	(0.279)
3 × PSL	0.169	0.211	0.0135	0.0472
	(0.236)	(0.210)	(0.226)	(0.299)
3 × PiS	-0.371	-0.0107	-0.00656	-0.0545
	(0.287)	(0.220)	(0.260)	(0.332)
3 × SLD	0.0961	-0.167	-0.136	-0.171
	(0.241)	(0.257)	(0.249)	(0.354)
4 × PSL	0.349	0.227	-0.0543	-0.192
	(0.258)	(0.214)	(0.218)	(0.247)
4 × PiS	-0.331	0.151	-0.249	0.157
	(0.255)	(0.220)	(0.256)	(0.263)
4 × SLD	-0.242	-0.267	-0.243	-0.220
	(0.244)	(0.248)	(0.251)	(0.254)
5 × PSL	0.336	0.0754	0.166	0.163
	(0.294)	(0.235)	(0.209)	(0.325)
5 × PiS	-0.255	0.0657	-0.120	0.344
	(0.291)	(0.261)	(0.257)	(0.308)

5 × SLD	-0.188	-0.212	-0.131	-0.217
	(0.290)	(0.281)	(0.264)	(0.313)
6 × PSL	-0.00329	0.332	0.656**	0.149
	(0.248)	(0.208)	(0.241)	(0.242)
6 × PiS	-0.505	0.189	0.182	-0.0386
	(0.266)	(0.221)	(0.317)	(0.274)
6 × SLD	-0.202	-0.351	0.136	-0.458
	(0.292)	(0.236)	(0.281)	(0.268)
7 × PSL	0.158	0.251	0.492*	0.114
	(0.221)	(0.240)	(0.230)	(0.249)
7 × PiS	-0.251	0.0453	-0.0232	0.0863
	(0.257)	(0.225)	(0.282)	(0.259)
7 × SLD	0.204	-0.122	-0.0725	-0.603*
	(0.276)	(0.270)	(0.240)	(0.276)
8 × PSL	0.671*	0.209	0.433*	0.236
	(0.261)	(0.275)	(0.213)	(0.254)
8 × PiS	-0.278	-0.121	-0.309	0.343
	(0.301)	(0.272)	(0.283)	(0.323)
8 × SLD	0.0139	-0.787**	-0.477	-0.669**
	(0.269)	(0.277)	(0.246)	(0.255)
9 × PSL	0.353	0.514	0.662**	0.332
	(0.237)	(0.291)	(0.208)	(0.283)
9 × PiS	-0.582*	0.278	0.143	0.350
	(0.254)	(0.267)	(0.288)	(0.293)
9 × SLD	0.115	-0.565	-0.226	-0.425
	(0.274)	(0.293)	(0.214)	(0.300)
10+ × PSL	0.643**	0.507**	0.597**	0.600**
	(0.204)	(0.176)	(0.207)	(0.214)
10+ × PiS	-0.289	0.123	-0.138	0.249
	(0.252)	(0.209)	(0.265)	(0.258)
10+ × SLD	0.127	-0.373*	-0.168	0.00801
	(0.239)	(0.176)	(0.212)	(0.245)
Female × PSL	-0.252	-0.0201	-0.648*	-0.262
	(0.171)	(0.311)	(0.307)	(0.253)
Female × PiS	0.00280	-0.583*	-0.485	0.181
	(0.293)	(0.291)	(0.308)	(0.332)
Female × SLD	0.425	-0.108	-0.0830	0.137
	(0.305)	(0.285)	(0.291)	(0.340)

2 × Female × PSL	-0.279	-0.470	0.635	0.286
	(0.457)	(0.418)	(0.410)	(0.340)
2 × Female × PiS	-0.167	0.340	0.287	-0.0277
	(0.412)	(0.370)	(0.384)	(0.425)
2 × Female × SLD	-0.448	-0.330	0.485	-0.241
	(0.492)	(0.494)	(0.494)	(0.413)
3 × Female × PSL	-0.261	-0.200	0.650	0.385
	(0.587)	(0.438)	(0.354)	(0.381)
3 × Female × PiS	0.164	0.398	0.330	-0.126
	(0.469)	(0.373)	(0.382)	(0.479)
3 × Female × SLD	-1.046*	-0.0719	0.677	0.0402
	(0.421)	(0.391)	(0.537)	(0.506)
4 × Female × PSL	0.0718	0.102	1.196**	0.473
	(0.413)	(0.401)	(0.436)	(0.363)
4 × Female × PiS	0.0989	0.317	0.692	-0.280
	(0.455)	(0.388)	(0.425)	(0.405)
4 × Female × SLD	-0.186	0.0985	-0.230	-0.0124
	(0.403)	(0.389)	(0.421)	(0.484)
5 × Female × PSL	0.273	-0.341	1.688***	0.293
	(0.402)	(0.463)	(0.490)	(0.402)
5 × Female × PiS	-0.120	0.803*	0.919*	-0.381
	(0.410)	(0.405)	(0.453)	(0.459)
5 × Female × SLD	-0.711	0.0476	0.642	-0.320
	(0.436)	(0.459)	(0.419)	(0.438)
6 × Female × PSL	0.194	0.121	0.484	0.549
	(0.300)	(0.508)	(0.387)	(0.400)
6 × Female × PiS	-0.130	0.697	0.397	0.308
	(0.411)	(0.366)	(0.493)	(0.446)
6 × Female × SLD	-0.555	-0.0412	0.245	-0.195
	(0.458)	(0.508)	(0.432)	(0.425)
7 × Female × PSL	0.0156	-0.383	0.491	-0.258
	(0.358)	(0.463)	(0.397)	(0.362)
7 × Female × PiS	-0.250	0.121	0.396	-0.276
	(0.434)	(0.383)	(0.420)	(0.427)
7 × Female × SLD	-0.947*	-0.347	-0.0960	0.248
	(0.453)	(0.450)	(0.411)	(0.455)
8 × Female × PSL	-0.268	-0.308	0.467	0.266
	(0.310)	(0.549)	(0.567)	(0.438)

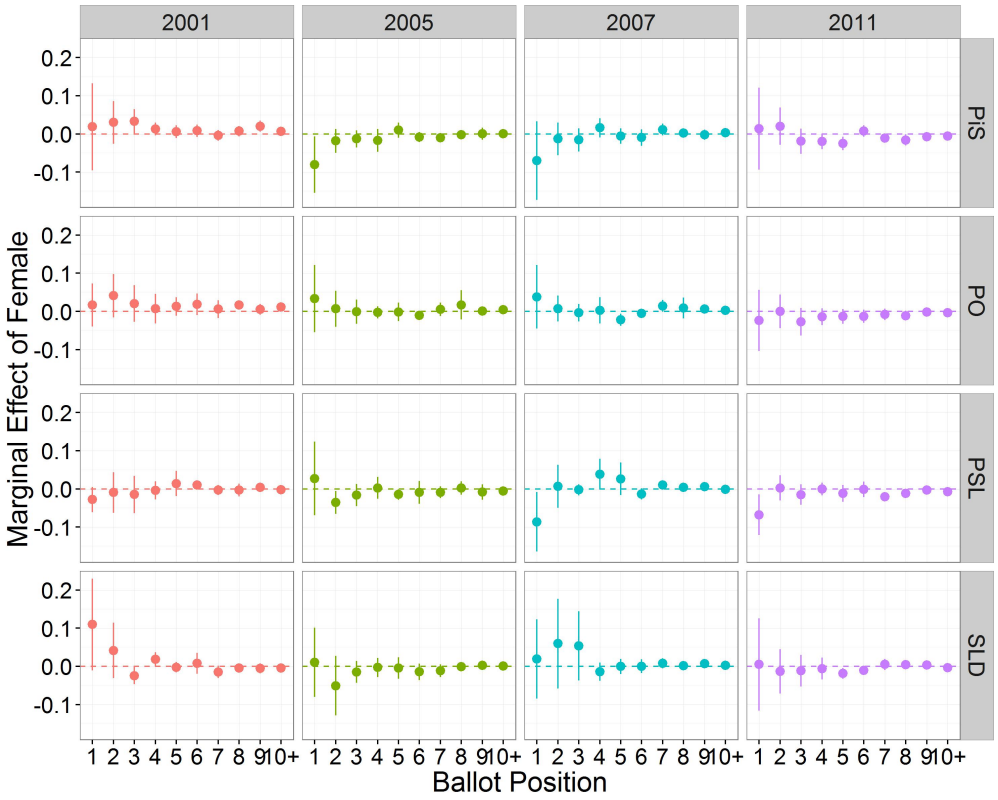
8 × Female × PiS	-0.227	0.117	0.288	-0.292
	(0.302)	(0.530)	(0.554)	(0.520)
8 × Female × SLD	-1.015**	-0.307	-0.121	0.507
	(0.372)	(0.551)	(0.557)	(0.500)
9 × Female × PSL	0.214	-0.287	0.531	0.211
	(0.317)	(0.471)	(0.421)	(0.428)
9 × Female × PiS	0.491	0.564	0.0864	-0.473
	(0.392)	(0.408)	(0.528)	(0.433)
9 × Female × SLD	-0.777	0.193	0.134	0.146
	(0.410)	(0.381)	(0.402)	(0.480)
10+ × Female × PSL	-0.298	-0.495	0.445	0.176
	(0.241)	(0.303)	(0.332)	(0.262)
10+ × Female × PiS	-0.161	0.380	0.516	-0.284
	(0.334)	(0.288)	(0.325)	(0.333)
10+ × Female × SLD	-1.090***	-0.0764	0.110	-0.0987
	(0.330)	(0.274)	(0.320)	(0.342)
District Magnitude	-0.0411***	-0.0343***	-0.0326***	-0.0353***
	(0.00243)	(0.00227)	(0.00191)	(0.00181)
Age	0.0540***	0.0553***	0.0213	0.0209
	(0.00909)	(0.0104)	(0.0124)	(0.0122)
Age × Age	-0.000564***	-0.000608***	-0.000191	-0.000203
	(0.000102)	(0.000119)	(0.000136)	(0.000129)
Constant	-1.648***	-1.622***	-0.818**	-0.887**
	(0.249)	(0.244)	(0.294)	(0.324)
Observations	3300	3382	3637	3661
AIC	1032.1	1004.9	1001.5	1016.4
BIC	1532.4	1513.4	1516.0	1531.4

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

A.3.2 *Marginal Effect Plot*

Figure A.1: Marginal Effect of Female based on Fractional Logit Model



A.4 RESULTS FROM THE VOTER PREFERENCE MODEL WITHOUT INTERACTION (OLS)

A.4.1 *Regression Analysis*

Table A.4: OLS Regression

	(1)	(2)	(3)	(4)
	2001	2005	2007	2011
2	-0.186***	-0.183***	-0.215***	-0.157***
	(0.0140)	(0.0121)	(0.0145)	(0.0139)
3	-0.217***	-0.233***	-0.253***	-0.200***
	(0.0132)	(0.0115)	(0.0131)	(0.0130)
4	-0.236***	-0.251***	-0.275***	-0.234***
	(0.0126)	(0.0115)	(0.0127)	(0.0115)
5	-0.242***	-0.264***	-0.291***	-0.248***
	(0.0129)	(0.0111)	(0.0123)	(0.0111)
6	-0.248***	-0.271***	-0.298***	-0.259***
	(0.0126)	(0.0108)	(0.0125)	(0.0110)
7	-0.255***	-0.277***	-0.308***	-0.264***
	(0.0124)	(0.0106)	(0.0120)	(0.0109)
8	-0.261***	-0.283***	-0.316***	-0.272***
	(0.0125)	(0.0107)	(0.0118)	(0.0108)
9	-0.266***	-0.289***	-0.317***	-0.278***
	(0.0123)	(0.0105)	(0.0118)	(0.0105)
10+	-0.272***	-0.298***	-0.324***	-0.283***
	(0.0121)	(0.0102)	(0.0117)	(0.0104)
Female	0.0145***	0.00399	0.00318	-0.00787***
	(0.00410)	(0.00373)	(0.00358)	(0.00230)
PSL	-0.00207	0.00239*	-0.000271	-0.000896
	(0.00117)	(0.00106)	(0.00106)	(0.00132)
PiS	0.00204	0.000863	0.000885	-0.000750
	(0.00120)	(0.000973)	(0.00113)	(0.00138)
SLD	-0.00152	0.00675***	-0.000144	-0.000295
	(0.00145)	(0.00129)	(0.00118)	(0.00164)
Female × PSL	-0.0107*	-0.00883	-0.00196	0.00114
	(0.00522)	(0.00466)	(0.00496)	(0.00292)

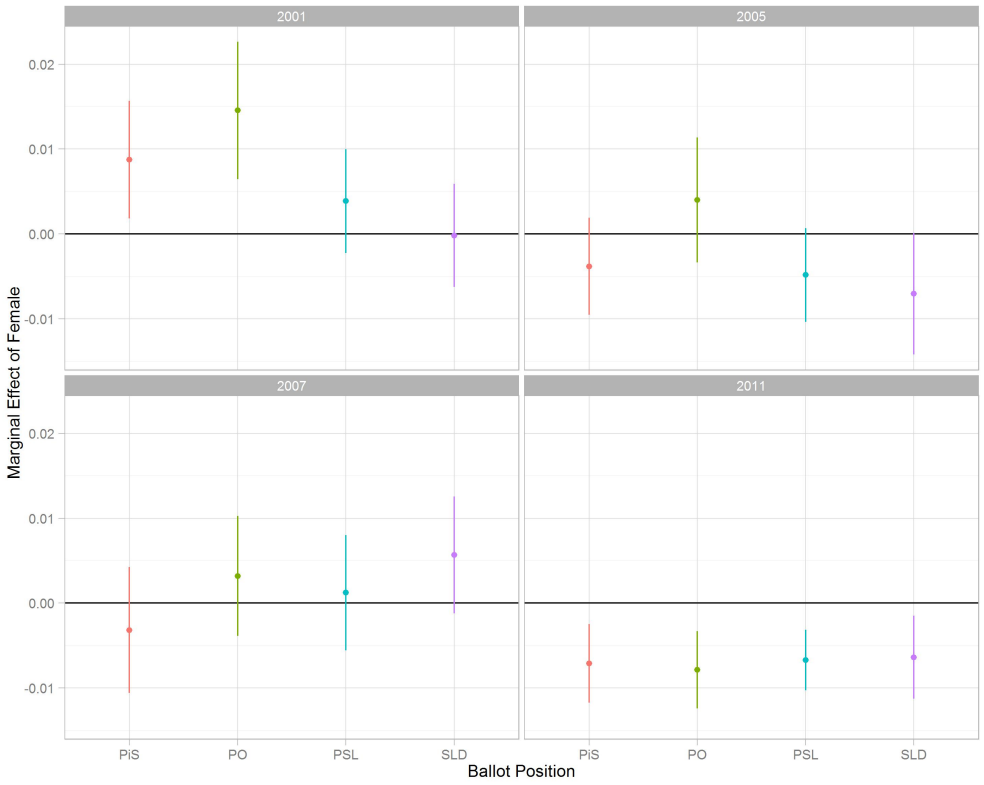
Female × PiS	-0.00580	-0.00782	-0.00636	0.000758
	(0.00546)	(0.00473)	(0.00526)	(0.00326)
Female × SLD	-0.0147**	-0.0110*	0.00250	0.00148
	(0.00514)	(0.00518)	(0.00508)	(0.00340)
District Magnitude	-0.00170***	-0.00135***	-0.00124***	-0.00125***
	(0.000107)	(0.0000994)	(0.0000777)	(0.0000944)
Age	0.00175***	0.00172***	0.000522	0.000731*
	(0.000309)	(0.000337)	(0.000415)	(0.000363)
Age × Age	-0.0000185***	-0.0000192***	-0.00000453	-0.00000750
	(0.00000375)	(0.00000407)	(0.00000489)	(0.00000414)
Constant	0.275***	0.294***	0.341***	0.301***
	(0.0134)	(0.0127)	(0.0146)	(0.0123)
Observations	3300	3382	3637	3661
R^2	0.665	0.748	0.753	0.733
Adjusted R^2	0.663	0.746	0.752	0.731

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

A.4.2 *Marginal Effect Plot*

Figure A.2: Marginal Effect of Female without ballot position interaction



A.5 ANALYSIS OF POSITION IMPROVEMENT

In order to analyze the improvement of ballot positions by women, we computed a new variable which measures the number of positions a candidate improved after the election:

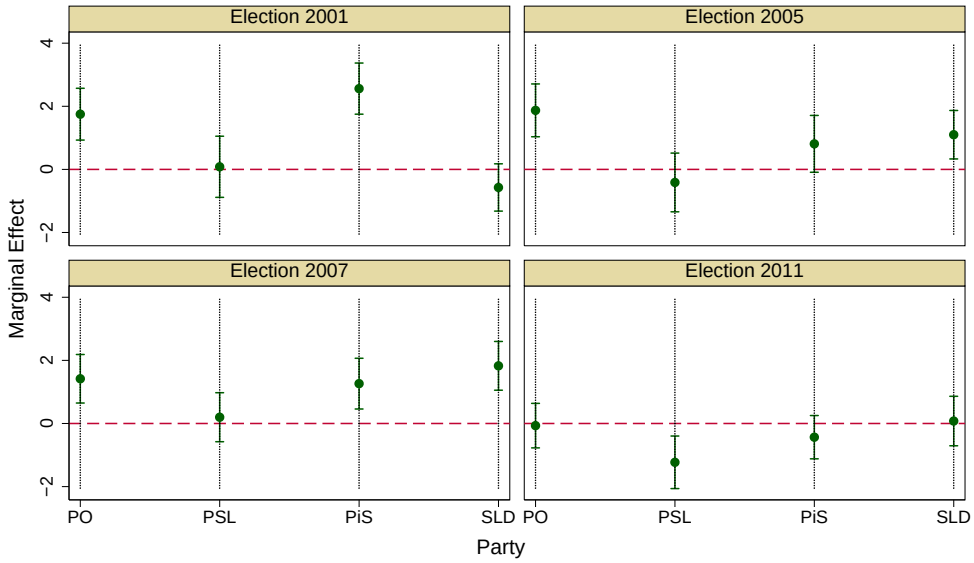
$$\text{Improvement} = \text{Ballot Position} - \text{Rank after election} \tag{A.1}$$

Thus, positive values indicate that a candidate improved her or his position on the list. We run a simple OLS regression model on this variable:

$$\begin{aligned} \text{Improvement} = \beta_0 + \\ \beta_1 * \text{Gender} + \\ \beta_2 * \text{Party} + \\ \beta_3 * \text{Election Year} + \\ \beta_4 * (\text{Gender} \times \text{Party}) + \\ \beta_5 * (\text{Gender} \times \text{Election Year}) + \\ \beta_6 * (\text{Election Year} \times \text{Party}) + \\ \beta_7 * (\text{Election Year} \times \text{Party} \times \text{Gender}) + \\ \epsilon \end{aligned} \tag{A.2}$$

Below we plot the marginal effect of gender conditional on year and party membership (Figure A.3). Only in the elections 2001 and 2007 gender shows a strong positive effect for PiS and only in the election 2001 the effect of gender is stronger compared to other parties.

Figure A.3: Marginal effect of gender on position improvement



B

APPENDIX FOR 'VOTING FOR LOCALS: VOTERS' INFORMATION PROCESSING STRATEGIES IN OPEN-LIST PR SYSTEMS'

Figure B.1: Example of Ballot Paper used in the Elections

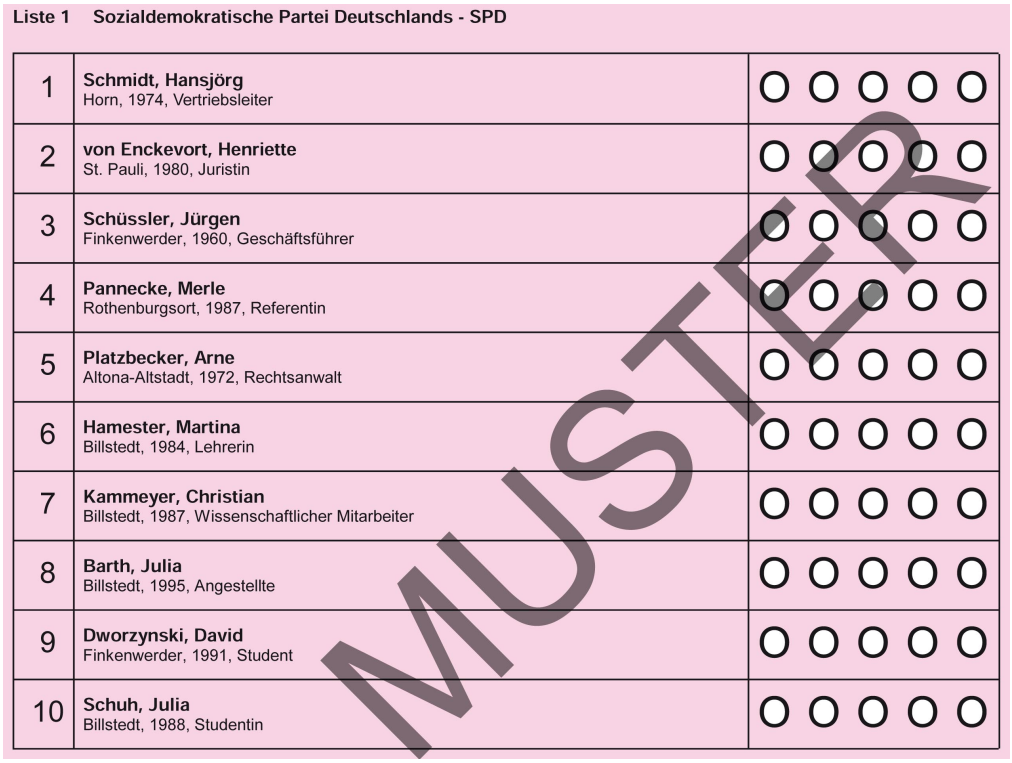


Table B.1: Fractional Logit Regression on Electoral District Level

	(1)	(2)	(3)
PhD Title	0.203**	0.193**	0.196**
	(0.075)	(0.074)	(0.074)
Female	0.067	0.068	0.067
	(0.049)	(0.048)	(0.048)
Incumbent	0.258**	0.263**	0.268**
	(0.065)	(0.061)	(0.061)
Age	0.008	0.009	0.010
	(0.008)	(0.008)	(0.008)
Age × Age	-0.000†	-0.000*	-0.000*
	(0.000)	(0.000)	(0.000)
Relative Size of Urban District	0.254**	0.261**	-0.417*
	(0.063)	(0.076)	(0.211)
First in District		0.268**	0.222**
		(0.080)	(0.083)
Second in District		0.081	0.089
		(0.090)	(0.103)
Third in District		-0.084	-0.082
		(0.109)	(0.135)
Fourth in District		0.066	0.510*
		(0.155)	(0.198)
First in District × Relative Size of Urban District			0.839**
			(0.254)
Second in District × Relative Size of Urban District			0.621*
			(0.297)
Third in District × Relative Size of Urban District			0.666*
			(0.295)
Fourth in District × Relative Size of Urban District			
Constant	-2.072**	-2.098**	-2.146**
	(0.231)	(0.228)	(0.229)
Listlength & Ballot Position FE	Yes	Yes	Yes
Observations	561	561	561

Standard errors in parentheses

† $p < 0.10$, * $p < 0.05$, ** $p < 0.01$

Table B.2: OLS Regression with Candidate Fixed Effects for each Ballot Position and No Competing Candidates

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
First from Urban District	0.194**	0.192**	0.254**	0.183**	0.136**	0.129**	0.124**	0.102**	0.136**	0.179*
	(0.024)	(0.028)	(0.045)	(0.028)	(0.026)	(0.039)	(0.017)	(0.017)	(0.032)	(0.069)
Constant	0.464**	0.189**	0.106**	0.095**	0.077**	0.070**	0.043**	0.039**	0.036**	0.035**
	(0.003)	(0.003)	(0.006)	(0.003)	(0.002)	(0.004)	(0.002)	(0.002)	(0.002)	(0.005)
Observations	252	221	170	190	139	120	67	81	59	51
Adjusted R^2	0.243	0.306	0.532	0.484	0.541	0.347	0.827	0.545	0.672	0.570

Standard errors in parentheses

† $p < 0.10$, * $p < 0.05$, ** $p < 0.01$

Table B.3: OLS Regression with Candidate Fixed Effects (candidates living outside of ED removed)

	(1)	(2)
In district	0.103**	
	(0.005)	
First from Urban District		0.147**
		(0.008)
Second from Urban District		0.051**
		(0.004)
Third from Urban District		0.030**
		(0.003)
Fourth from Urban District		0.025**
		(0.004)
Constant	0.137**	0.137**
	(0.001)	(0.001)
Observations	2995	2995
Adjusted R^2	0.270	0.340

Standard errors in parentheses

† $p < 0.10$, * $p < 0.05$, ** $p < 0.01$

C

THE STRUGGLE OVER IDEOLOGY: ANALYZING LEFT-RIGHT DEFINITIONS OF PARLIAMENTARY CANDIDATES USING STRUCTURAL TOPIC MODELS

C.1 CODING AND DEFINITION OF INDEPENDENT VARIABLES

Table C.1: Coding and Definition of Independent Variables

Variable	Definition (categories)	Variable name(s) GLES candidate survey dataset
Party	Candidate's party affiliation (Conservatives (CDU/CSU), Social Democrats (SPD), Liberals (FDP), Greens (Green Party), Socialists (Left Party), Nationalists (AfD))	a1
East-West	Candidature in Western/Eastern Germany (0 = Western, 1 = Eastern)	bundesland (recoded)
Age	Age of candidate in years	e3 (own computation)
Vocational training	Candidate's vocational training (university degree, vocational training, none/still studying or in training)	e12 (recoded)
Gender	Candidate's gender (0 = male, 1 = female)	e2 (recoded)
Migration background	Candidate's migration background (Yes if one parent was born outside of Germany) (0 = no, 1 = yes)	e6a, e6b (own computation)
Place of residence	Candidate's self-descripted place of residence (0 = rural, 1 = urban)	e8 (recoded)
Left-Wing, Center, Right-Wing	Candidate's deviation on left-right scale from their party (each variable measured on a 11-point scale) (deviation $< 0 \rightarrow$ left-wing, deviation $= 0 \rightarrow$ center deviation $> 0 \rightarrow$ right-wing)	c3, c4a, c4b, c4c, c4d, c4f, c4h (own computation)

C.2 DESCRIPTIVE STATISTICS

C.2.1 *Left corpus*

Table C.2: Descriptive Statistics for Continuous Variables

Statistic	N	Mean	St. Dev.	Min	Max
Topic 1: State v. Individuum	715	0.199	0.177	0.014	0.715
Topic 2: Economy	715	0.261	0.264	0.012	0.814
Topic 3: Equal Opportunities	715	0.159	0.126	0.029	0.688
Topic 4: Social Justice	715	0.380	0.321	0.016	0.891
Age	715	47.745	11.696	18	79

Table C.3: Descriptive Statistics for Categorical Variables

Variable	Freq.	Perc.
Party		
Nationalists (AfD)	100	14.00
Conservatives (CDU/CSU)	109	15.20
Liberals (FDP)	110	15.40
Social Democrats (SPD)	133	18.60
Greens (Die Grünen)	128	17.90
Socialists (Die Linke)	135	18.90
Total	715	100.00
Intra-Party Position		
Left-Wing	188	26.30
Center	348	48.70
Right-Wing	179	25.00
Total	715	100.00
Gender		
Male	481	67.30
Female	234	32.70
Total	715	100.00
Residence		
Rural	484	67.70
Urban	231	32.30
Total	715	100.00
Education		
Vocational Training	207	29.00
University Degree	435	60.80
In Training	53	7.40
Missing	20	2.80
Total	695	100.00
Migration Background		
No Migrant	586	82.00
Migrant	129	18.00
Total	715	100.00
East-West		
West	570	79.70
East	145	20.30
Total	715	100.00

C.2.2 *Right corpus*

Table C.4: Descriptive Statistics for Continuous Variables

Statistic	N	Mean	St. Dev.	Min	Max
Topic 1: Freedom and Self-responsibility	700	0.282	0.235	0.025	0.844
Topic 2: Xenophobia	700	0.346	0.182	0.030	0.839
Topic 3: Status Quo	700	0.373	0.175	0.060	0.782
Age	700	47.691	11.794	18	79

Table C.5: Descriptive Statistics for Categorical Variables

Variable	Freq.	%
Party		
Nationalists (AfD)	97	13.90
Conservatives (CDU/CSU)	109	15.60
Liberals (FDP)	105	15.00
Social Democrats (SPD)	130	18.60
Greens (Die Grünen)	128	18.30
Socialists (Die Linke)	131	18.70
Total	700	100.00
Intra-Party Position		
Left-Wing	186	26.60
Center	340	48.60
Right-Wing	174	24.90
Total	700	100.00
Residence		
Rural	474	67.70
Urban	226	32.30
Total	700	100.00
Gender		
Male	471	67.30
Female	229	32.70
Total	700	100.00
Education		
Vocational Training	205	29.30
University Degree	425	60.70
In Training	50	7.10
Missing	20	2.90
Total	680	100.00
Migration Background		
No Migrant	578	82.60
Migrant	122	17.40
Total	700	100.00
East-West		
West	563	80.40
East	137	19.60
Total	700	100.00

C.3 STM WITH K = 4 FOR THE TERM "RIGHT"

Here we present the results from a STM analysis of the term "right" using four topics (K = 4).[1] Compared to our three topic solution reported in the paper, we think that the four topic solution yields less interpretable results.

The following Table C.6 presents the FREX words for each of the four topics.

Table C.6: FREX words for the four topic solution

Topic	Frex
Topic 1	reich, sozial, marktwirtschaft, famili, arm, unsozial, bewahr
(translation)	rich, social, free market economy, family, poor, unsocial, to preserve
Topic 2	recht, eigenverantwort, wert, freiheit, deutsch, radikal, mensch
(translation)	right, self-responsibility, value, freedom, german, radical, huamn
Topic 3	nationalismus, autoritar, grupp, neoliberal, intoleranz, intolerant, kapitalist
(translation)	nationalism, authoritarian, group, neoliberal, intolerance, capitalism
Topic 4	ausland, eher, orientiert, konservativ, gegenub, abschott, nationalist
(translation)	foreign, rather, oriented, conservative, against, foreclosure, nationalist

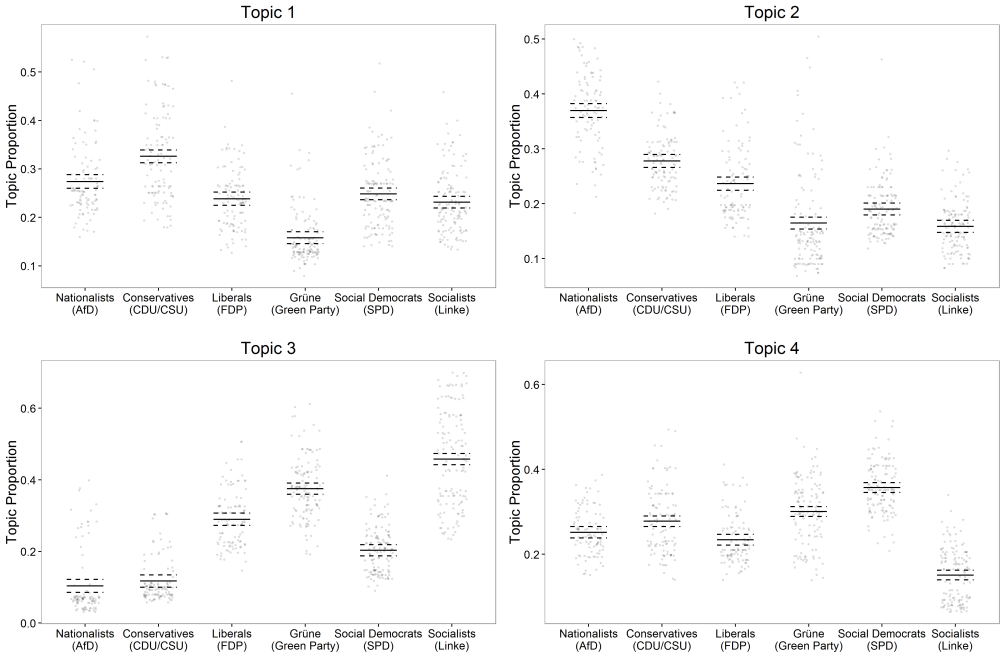
Topic 1 is a mixture of economic and conservative words, such as "rich" or "family". At the same time it also includes negative connoted words like "unsocial". Hence, it is hard to find a clear label for this topic. Topic 2 includes some elements from the "freedom and self-responsibility" topic of the K = 3 solution, but with K = 4 there are also occurences of words like "radical", which do not really fit well into the picture. The third topic is clearly negatively connoted and is a critique of the term "right" as being too nationalistic and authoritarian. This topic also includes with "neoliberal" and "capitalism" two economic words. Finally, topic 4 also contains some negative words, but also "conservative". Again, we do not think that these words represent a coherent topic.

In Figure C.1, we display the expected topic proportions based on party membership. Of course, these plots also show some interesting effects. For example, topic 2 is most frequently discussed by the nation-

1 We also estimated models with K > 4 which also did not yield more consistent topics. We do not report these models here. Moreover, the presented model here is just one of several topics we ran with K = 4. As each model depends on the randomly generated starting values results are often slightly different compared to the model presented here.

alists. Topics 2 and 3 show a clear dichotomy between left-wing and right-wing parties. However, topic 1 and topic 4 show no clear patterns, which is in line with our observation that these topics cannot be interpreted as a coherent topic. Therefore, we are convinced that our three topic solution yielded more reliable topics.

Figure C.1: Expected topic proportion for the term "right" based on party membership (K=4)



Note: Horizontal solid lines denote average topic proportions for each party. Dashed lines display 95% confidence intervals. Grey points display the observations for each party (jitter added to points to show density).

C.4 DETAILED STM RESULTS

In addition to the information provided in the paper, we describe the two STM models used for the analysis in more detail below.

C.4.1 *STM for the term left*

In the paper we interpreted the topics based on the FREX words. However, the most important words can be computed based on different approaches (see Roberts et al. 2014 for details). In Table C.7, we display the most relevant words for different label types. In general, all labels yield similar results.

Table C.7: Different Label Types for the term "left"

Topic	Type	Word 1	Word 2	Word 3	Word 4	Word 5	Word 6	Word 7
Economy (Negative)	frex	gleichmacherei	bevormund	staatsglaub	sozialist	sozialismus	schuld	umverteil
Economy (Negative)	lift	schuld	planwirtschaft	enteign	gleichmacherei	staatsglaub	bevormund	kommunismus
Economy (Negative)	prob	umverteil	gleichmacherei	bevormund	sozialismus	sozialist	staatsglaub	hoh
Economy (Negative)	score	umverteil	gleichmacherei	bevormund	sozialist	sozialismus	staatsglaub	hoh
Equal Oppotunities	frex	mensch	leb	gleich	arbeit	mittelpunkt	chanc	gut
Equal Oppotunities	lift	schaff	rent	chanc	mittelpunkt	leb	kampf	schutz
Equal Oppotunities	prob	mensch	polit	gleich	leb	gut	wirtschaft	teilhab
Equal Oppotunities	score	mensch	polit	gleich	leb	arbeit	mittelpunkt	teilhab
Social Justice and Peace	frex	solidaritat	fried	solidar	gerecht	tolerant	chancengleich	off
Social Justice and Peace	lift	friedenspolit	tolerant	gleichstell	liberal	fried	solidaritat	chancengleich
Social Justice and Peace	prob	sozial	gerecht	gesellschaft	solidaritat	solidar	off	fried
Social Justice and Peace	score	gerecht	sozial	solidaritat	solidar	fried	off	weltoff
State v. Individual (Negative)	frex	eigenverantwort	burg	wenig	einzeln	staat	link	gross
State v. Individual (Negative)	lift	grun	eigenverantwort	einzeln	person	realitat	eig	gross
State v. Individual (Negative)	prob	staat	link	wirtschaft	wenig	burg	verantwort	recht
State v. Individual (Negative)	score	staat	link	wenig	burg	eigenverantwort	wirtschaft	einzeln

In Table C.8, we display the four most relevant quotes for each of the four topics. Again, we find a very high level of consistency between the quotes.

Table C.8: Four most representative quotes of each topic for the term "left"

Topic	Quotes
State v. Individual (Negative)	Links steht für den Glauben, dass der Staat für alles zuständig und verantwortlich ist.
	Den einzelnen Bürgern selbst wird kaum eigenständiges Handeln und Eigenverantwortung zugetraut.
State v. Individual (Negative)	Links steht für den fürsorgenden Staat
State v. Individual (Negative)	mehr Staat, Regulierung der Wirtschaft, Unterdrückung der Freiheit des Einzelnen
State v. Individual (Negative)	Diese historischen Begriffe sind nicht mehr gültig!
	Die Politik war/ist dabei eher staatsorientiert, d.h. der Staat soll mehr für die Bürger regeln, als sie selbst.
	Der Staat ist die allumfassende, regelnde und versorgende Instanz.
Economy (Negative)	Umverteilung, Staatsgläubigkeit, Planwirtschaft, Bevormundung, Gleichheit
Economy (Negative)	Verteilung von Eigentum, höhere Steuern, unrealistische Vorstellungen, Abschaffung des Leistungsprinzips
Economy (Negative)	sozialistisch, mehr staatlicher Dirigismus, Gleichmacherei, höhere Steuern, geringe Wirtschaftskompetenz
Economy (Negative)	höhere Steuern, Schulden, Bevormundung, Mindestlohn
Equal Oppotunities	Der Mensch steht im Mittelpunkt sozialpolitischer Bemühungen,
	unabhängig von Geschlecht, Herkunft, Hautfarbe etc. und nicht das Kapital.
Equal Oppotunities	Gleichrangigkeit und Wechselseitigkeit der Grundwerte Freiheit und Gleichheit,
	Eindämmung sozialer Ungleichheiten und Schaffung gleicher Startchancen unabhängig von der Herkunft;
	Wirtschaftsdemokratie, also gleiche Augenhöhe zwischen Arbeit und Kapital schaffen,
	Primat der Politik gegenüber der Wirtschaft
Equal Oppotunities	Verstaatlichung von Banken und Konzernen, garantierte Rente, Mindestlohn so hoch angesetzt,
	dass jeder von seiner Arbeit auch leben kann.
	Anti Europäisch. Absolut gegen Rüstungsexporte
Equal Oppotunities	gleiche Behandlung aller gesellschaftlicher Gruppen, z.B. gleicher Lohn für gleiche Arbeit,
	Mindestlohn, Quote, gute Rahmenbedingungen für Familien und Pflegende
Social Justice and Peace	sozial friedlich gerecht international weltoffen solidarisch
Social Justice and Peace	soziale Gerechtigkeit, (Mit)Menschlichkeit, Solidarität, Toleranz, Weltoffenheit
Social Justice and Peace	soziale Gerechtigkeit, Freiheit, Frieden, Solidarität
Social Justice and Peace	Soziale, friedliche und ökologisch verantwortliche Demokraten

C.4.2 *STM for the term right*

Table C.9 displays the different label types for the term "right".

Table C.9: Different Label Types for the term "right"

Topic	Type	Word 1	Word 2	Word 3	Word 4	Word 5	Word 6	Word 7
Freedom and Self-Responsibility	frex	eigenverantwort	verantwort	marktwirtschaft	freiheit	patriotismus	famili	wert
Freedom and Self-Responsibility	lift	christlich	vaterland	freie	patriotismus	ordnung	gibt	individuum
Freedom and Self-Responsibility	prob	freiheit	staat	eigenverantwort	burg	wert	famili	einzeln
Freedom and Self-Responsibility	score	freiheit	eigenverantwort	staat	burg	wert	famili	verantwort
Status Quo	frex	ausgrenz	abschott	unt	national	egoismus	denk	umverteil
Status Quo	lift	stillstand	quo	unt	andersdenk	abschott	gewalt	ausgrenz
Status Quo	prob	konservativ	national	ausgrenz	nationalist	wirtschaft	gegenub	sozial
Status Quo	score	konservativ	national	ausgrenz	denk	orientiert	umverteil	gegenub
Xenophobia	frex	rassismus	intoleranz	nationalismus	kapital	deutsch	interess	deutschland
Xenophobia	lift	antisemitismus	homophobi	sexismus	bank	kapital	deutschland	rassismus
Xenophobia	prob	recht	auslanderfeind	nationalismus	wenig	interess	wirtschaft	mensch
Xenophobia	score	nationalismus	wenig	interess	rassismus	auslanderfeind	intoleranz	recht

In Table C.10, we show the four most representative quotes for each topic for the term "right".

Table C.10: Four most representative quotes of each topic for the term “right”

Topic	Quotes
Freedom and Self-Responsibility	Diese historischen Begriffe sind nicht mehr gültig. Die Politik war/ist dabei eher bürgerlich, individuell orientiert.
	Jeder Bürger sorgt erst einmal für sich und seine Familie und in letzter Instanz kann der Staat helfend eingreifen.
	Die Freiheit des Individuums steht dabei im Vordergrund.
	Fremdbestimmung, Vorschriften und Beschneidungen der persönlichen Freiheit durch den Staat werden abgelehnt.
	Es gibt hoheitliche Staatsaufgaben wie Verteidigung und Innere Sicherheit, die vom Staat wahrgenommen werden.
	Alles andere überläßt man den Bürgerinnen und Bürgern.
Freedom and Self-Responsibility	Innere und äußere Sicherheit, Wirtschaftswachstum und Beschäftigung, Werte,
	Balance zwischen Freiheit und Sicherheit
Freedom and Self-Responsibility	Mut zu Wahrheit, Ausrichtung von Politik an Naturgesetzlichkeiten,
	Anerkennung von Radikalen, Bewahrung von unverzichtbaren Werten wie Familie, Volk, Freiheit.
Freedom and Self-Responsibility	Eigenverantwortung, Heimatliebe, Ehe und Familie, Freiheit, Demokratie
Xenophobia	Konservativismus, Nationalismus, Sexismus, Homophobie, Abschiebung,
	NSU, Antisemitismus, Krieg, Verschwörungsideologie, Deutschland eben
Xenophobia	Ungleichheit betonen Eigennutz/Nutzenmaximierer Das Private betonend:
	Privat vor öffentlich Konkurrenz vor Kooperation: Wettbewerb als Credo Politische Ökonomie des Kapitals:
	Nur wenn es dem Kapital gut geht, bleibt - vielleicht - was für die Menschen
Xenophobia	"Rechts sein" bedeutet für mich in erster Linie ständiger Vorrang der Interessen
	der als "eigene" empfundenen Gruppen vor anderen, also bspw. Nationalismus.
	Die eigenen Privilegien werden als unmaßgeblich heruntergespielt,
	statt Teilhabe geht es um "Chancen".
	Das Recht des Stärkeren wird mit seinem angeblich historischen Erfolg begründet.
	Der Staat ist in erster Linie dazu da, die eigenen Interessen zu wahren,
	jede Vorgabe, die den eigenen Wünschen widerspricht, ist "Bevormundung",
	jede staatliche Unterstützung des eigenen Lebensentwurfs dagegen quasi geborenes Recht.
Xenophobia	für Nationalismus, Exklusion, Fremdenfeindlichkeit bis hin zu Hass,
	für verbohrte Geschlechterrollen, für Hass und Angst vor allem,
	was herschende Ungleichheit und Demokratiemängel in Frage stellt.
	Für Homophobie, Verklemmtheit, Humorlosigkeit und fehlenden Stil.
Status Quo	patriotisch/ nationalistisch, Ausländern gegenüber eher ablehnend, Sozialschwachen gegenüber eher ablehnend
Status Quo	Status-quo-Denken, eher auf das nationale schauend, zu wirtschaftsfreundlich, zu sehr dem Leistungsprinzip unterstellt
Status Quo	konservativ, verharren im Status quo, Abschottung vor Fremden
Status Quo	konservativ, national orientiert, privatwirtschaftlich orientiert

C.5 REPLICATION

All analyses were conducted using R 3.3.1 on a Windows Computer. STM has been estimated using the STM R Package v. 1.1.3.

Replication materials will be made publicly available upon publication. Below we provide an R Markdown report in which we describe all steps of the analysis.

Replication for Left Right Topic Models

```
library(stm)
library(lubridate)
library(rvest)
library(dplyr)
library(haven)
library(xtable)
library(plyr)
library(stargazer)
library(ggplot2)
library(visreg)
library(gridExtra)

# read in data (spss file)

gles.data <- read_spss("ZA5716_v1-0-0.sav") # read data

# east west variable

gles.data$bundesland <- gles.data$bundesland %>% as_factor %>% as.character

gles.data$east <- gles.data$bundesland == "Sachsen" | gles.data$bundesland ==
"Brandenburg" | gles.data$bundesland == "Sachsen-Anhalt" |
gles.data$bundesland == "Thueringen" | gles.data$bundesland == "Berlin" |
gles.data$bundesland == "Mecklenburg-Vorpommern"

gles.data$east <- ifelse(gles.data$east, "East", "West")

gles.data$east <- factor(gles.data$east, level = c("West", "East"))

# age variable

gles.data$age <- 2013 - as.numeric(gles.data$e3)

# gender

gles.data$female <- gles.data$e2 %>% paste() %>% as.numeric()

gles.data$female <- ifelse(gles.data$female == 2, "Female", "Male")

gles.data$female <- factor(gles.data$female, level = c("Male", "Female"))

# party variable

gles.data$party <- gles.data$a1

# education

gles.data$edu <- NA
```

```r
gles.data$edu[gles.data$e12 <= 7 | gles.data$e12 == 11] <- "Vocational
Training"
gles.data$edu[gles.data$e12 == 8 | gles.data$e12 == 9 | gles.data$e12 == 10]
<- "University Degree"
gles.data$edu[gles.data$e12 == 12 | gles.data$e12 == 13 | gles.data$e12 ==
14] <- "In Training"
gles.data$edu[gles.data$e12 < 0] <- NA

gles.data$edu <- factor(gles.data$edu, level = c("Vocational
Training","University Degree","In Training"))

# migration

gles.data$migrant <- ifelse((gles.data$e6a + gles.data$e6b) > 2, "Migrant",
"No Migrant")

gles.data$migrant <- factor(gles.data$migrant, level = c("No Migrant",
"Migrant"))

# residence

gles.data$rural <- ifelse(gles.data$e8 <= 2, "Rural", "Urban")

gles.data$rural <- factor(gles.data$rural, level = c("Rural", "Urban"))

# remove pirate party

gles.data <- filter(gles.data, party != 215)

gles.data <- gles.data %>% as.data.frame(., stringAsFactors = F)

# adjust left-right scale variable (define missing values and convert to
numeric)

vars_lr <- c("c3",paste0("c4",letters[1:8]))

for(i in vars_lr){
  gles.data[,i] <- as.numeric(gles.data[,i])
  gles.data[,i][gles.data[,i]==-99] <- NA
}

# compute difference between party position and selfplacement

gles.data$lire.diff <- NA

for(i in 1:nrow(gles.data)){

  if(gles.data[i,"party"]==2){
```

```
    gles.data$lire.diff[i]<-(gles.data$c3[i] - gles.data$c4a[i])
  }
  if(gles.data[i,"party"]==3){
    gles.data$lire.diff[i]<-(gles.data$c3[i] - gles.data$c4b[i])
  }
  if(gles.data[i,"party"]==4){
    gles.data$lire.diff[i]<-(gles.data$c3[i] - gles.data$c4c[i])
  }
  if(gles.data[i,"party"]==6){
    gles.data$lire.diff[i]<-(gles.data$c3[i] - gles.data$c4f[i])
  }
  if(gles.data[i,"party"]==7){
    gles.data$lire.diff[i]<-(gles.data$c3[i] - gles.data$c4e[i])
  }
  if(gles.data[i,"party"]==322){
    gles.data$lire.diff[i]<-(gles.data$c3[i] - gles.data$c4h[i])
  }
  if(gles.data[i,"party"]==5){
    gles.data$lire.diff[i]<-(gles.data$c3[i] - gles.data$c4d[i])
  }
}
# cdu and csu as one party
gles.data$party[gles.data$party == 3] <- 2
# assign party labels
```

```r
gles.data$party[gles.data$party == 2] <- "CDU/CSU"
gles.data$party[gles.data$party == "4"] <- "SPD"
gles.data$party[gles.data$party == "5"] <- "FDP"
gles.data$party[gles.data$party == "6"] <- "GREEN"
gles.data$party[gles.data$party == "7"] <- "LEFT"
gles.data$party[gles.data$party == "322"] <- "AfD"

# order party labels

gles.data$party <- factor(gles.data$party, level = c("AfD", "CDU/CSU", "FDP",
"SPD", "GREEN", "LEFT"))

# turn text variables into characters

gles.data$links <- as.character(gles.data$e21as)
gles.data$rechts <- as.character(gles.data$e21bs)

# remove missing values in text variables such as "-99"

gles.data$links <- gsub("^-[0-9][0-9]$","",gles.data$links)
gles.data$rechts <- gsub("^-[0-9][0-9]$","",gles.data$rechts)

# remove the text "nicht lesbar" (= not readable)

gles.data$links <- gsub("nicht lesbar","",gles.data$links)
gles.data$rechts <- gsub("nicht lesbar","",gles.data$rechts)

# remove line breaks

gles.data$links <- gsub("\n"," ",gles.data$links, fixed = T)
gles.data$rechts <- gsub("\n"," ",gles.data$rechts, fixed = T)

# remove alle cases with missing values for left-right deviation

gles.data <- gles.data[!is.na(gles.data$lire.diff),]

# categories for left right devaition

gles.data$lrabw <- ""
gles.data$lrabw[gles.data$lire.diff < 0] <- "left"
gles.data$lrabw[gles.data$lire.diff == 0] <- "center"
gles.data$lrabw[gles.data$lire.diff > 0] <- "right"

# order categories

gles.data$lrabw <- factor(gles.data$lrabw, levels =
c("left","center","right"))

#######################################
#######################################
```

```r
# STM FOR LEFT ######################
#####################################
#####################################

# pre process data , german langauage and only characters

processed <- textProcessor(gles.data$links, metadata=gles.data,
language="german", onlycharacter=TRUE)

## Building corpus...
## Converting to Lower Case...
## Removing stopwords...
## Removing numbers...
## Removing punctuation...
## Stemming...
## Creating Output...

out.links <- prepDocuments(processed$documents, processed$vocab,
processed$meta, lower.thresh = 2)

## Removing 1169 of 1472 terms (1383 of 4432 tokens) due to frequency
## Removing 21 Documents with No Words
## Your corpus now has 715 documents, 303 terms and 3049 tokens.

docs.links <- out.links$documents
vocab.links <- out.links$vocab
meta.links <- out.links$meta

# the following code has been run.
# here, we only load the final model

# run several models

#stm.select.links <- selectModel(docs.links, vocab.links, K=4, prevalence=~
party*lrabw, max.em.its=500, data=meta.links, runs=20, LDAbeta=FALSE)

# reproduce exactly the same model

#stmModel.links <- stm(docs.links, vocab.links, K=4, prevalence=~
party*lrabw, max.em.its=500, seed = 2967911, data=meta.links, LDAbeta=FALSE)

#stmModel.links$settings$seed

#save(stmModel.links, file = "stm_links_final.Rda")

stmModel.links <- load("stm_links_final.Rda") %>% get()

# export all labels for appendix

all_labels <- labelTopics(stmModel.links)
```

```r
all_labels <- all_labels[1:4]

all_labels <- lapply(all_labels, function(x) as.data.frame(x,
stringsAsFactors = F))

all_labels <- Reduce(rbind, all_labels)

topic_labels <- c("State v. Individual (Negative)", "Economy (Negative)",
"Equal Oppotunities", "Social Justice and Peace")

all_labels$Topic <- topic_labels

all_labels$Type <- rep(names(labelTopics(stmModel.links)[1:4]), each = 4)

all_labels <- all_labels[,c(8:9,1:7)]

all_labels <- all_labels[order(all_labels$Topic,all_labels$Type), ]

all_labels <- xtable(all_labels, caption = paste0("Different Label Types for
the term ``left''"))

#  4 most repr. quotes (for appendix)

q1 <- findThoughts(stmModel.links, texts=meta.links$links, n=4,
topics=1)$docs[[1]]
q2 <- findThoughts(stmModel.links, texts=meta.links$links, n=4,
topics=2)$docs[[1]]
q3 <- findThoughts(stmModel.links, texts=meta.links$links, n=4,
topics=3)$docs[[1]]
q4 <- findThoughts(stmModel.links, texts=meta.links$links, n=4,
topics=4)$docs[[1]]

most_rep <- c(q1,q2,q3,q4)

most_rep <- data.frame(rep(topic_labels, each = 4), most_rep,
stringsAsFactors = F)

colnames(most_rep) <- c("Topic", "Quotes")

most_rep <- xtable(most_rep, caption = paste0("Four most representative
quotes of each topic for the term ``left''"))

# Generate Table for the main paper with translated text

# translated quotes

thoughts_left_trans <- c("'Left stands for the belief that the state is
responsible for everything. There is almost no confidence in the self-reliant
actions of individual citizens.'",
                    "'Redistribution, state orthodoxy, planned economy,
```

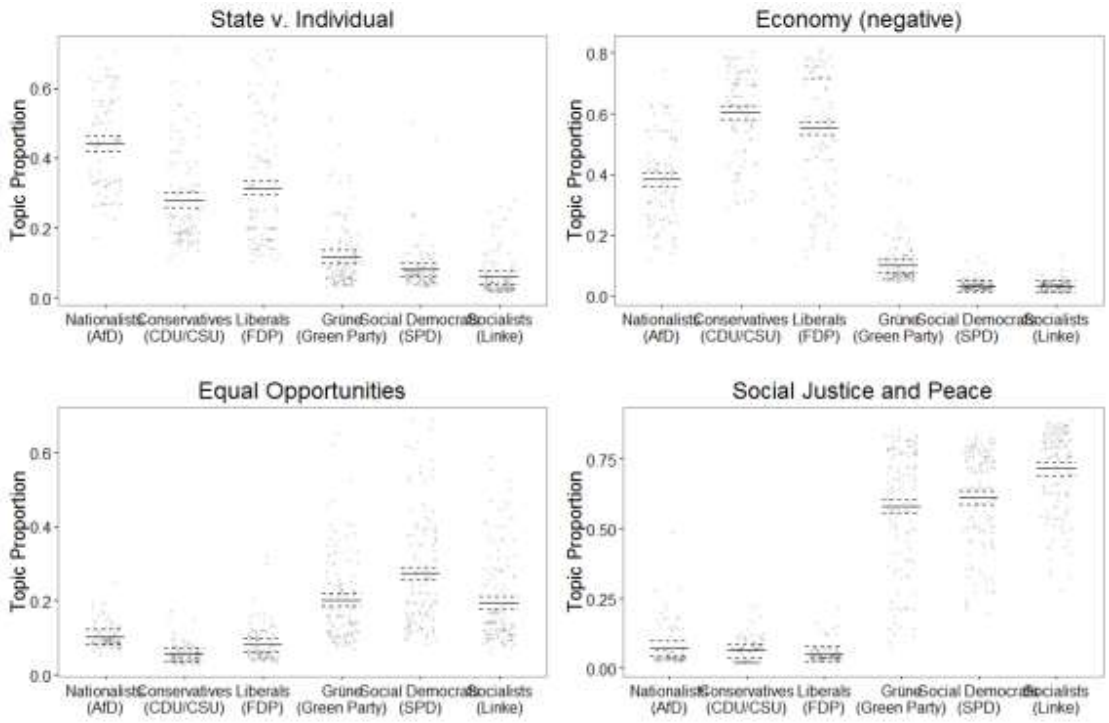
```
paternalism, equality.'",
                    "'The human, and not the capital, is at the center of all
socio-political efforts irrespective of the gender, origin, skin color
etc.'",
                    "'Social, peaceful, just, international, cosmopolitan,
solidarity.'")

# topic names for data

links_names <-
c("state_vs_ind","economy","equal_opportunities","social_justice")

# add topic proportions to data

meta.links[,links_names] <- stmModel.links$theta %>% as.data.frame()

topic_proportions <- sapply(links_names, function(x) mean(meta.links[,x]))

# get frex words

frex <- sapply(1:4, function(x) paste(labelTopics(stmModel.links)$frex[x,],
collapse = ", "))

# translated frex words

frex_trans <- c("selfresponsibility, citizen, little, individual, state,
left, large",
                "equalization, paternalism, state orthodoxy, socialist,
socialism, debt, redistribution",
                "human, life, equal, work, center, opportunity, good",
                "solidarity, peace, solidarity, justice, tolerance, equal
opportunities, open")

# summarize models (nr, label, frex, quote, proportion)
sum_t1 <- list(Nr = "Topic 1", Label = "State v. Individual (Negative)", FREX
= frex_trans[1], Quote = thoughts_left_trans[1], Proportion =
as.character(round(topic_proportions[1]*100 ,2)))
sum_t2 <- list(Nr = "Topic 2", Label = "Economy (Negative)", FREX =
frex_trans[2], Quote = thoughts_left_trans[2], Proportion =
as.character(round(topic_proportions[2]*100 ,2)))
sum_t3 <- list(Nr = "Topic 3", Label = "Equal Oppotunities", FREX =
frex_trans[3], Quote = thoughts_left_trans[3], Proportion =
as.character(round(topic_proportions[3]*100 ,2)))
sum_t4 <- list(Nr = "Topic 4", Label = "Social Justice and Peace", FREX =
frex_trans[4], Quote = thoughts_left_trans[4], Proportion =
as.character(round(topic_proportions[4]*100 ,2)))

# gen summary table
left_summary <- rbind(sum_t1,sum_t2) %>% rbind(.,sum_t3) %>% rbind(.,sum_t4)
```

```r
# export table

left_tab <- xtable(left_summary)

# descriptive statistics for appendix

#stargazer(meta.links[,c("state_vs_ind","economy","equal_opportunities","soci
al_justice","age")])

# function for categorical variables

make_tab <- function(data = meta.links, var = "east", label = "Var", freq =
"Freq.", perc = "Perc."){
  y <- count(data, var)
  colnames(y) <- c("Var",freq)
  y[,perc] <- round(y[,freq]/sum(y[,freq]),3)*100
  y[,1] <- as.character(y[,1])
  y <- rbind(data.frame(Var = label, "Freq." = NA, "Perc." = NA,
stringsAsFactors = F),y)
  y[(nrow(y)+1),1] <- "Total"
  y[nrow(y),2] <- sum(y[,2],na.rm = T)
  y[nrow(y),3] <- 100
  y
}

list_desc <- list(make_tab(meta.links, var = "party", label = "Party"),
                  make_tab(meta.links, var = "lrabw", label = "Intra-Party
Position"),
                  make_tab(meta.links, var = "female", label = "Gender"),
                  make_tab(meta.links, var = "rural", label = "Residence"),
                  make_tab(meta.links, var = "edu", label = "Education"),
                  make_tab(meta.links, var = "migrant", label = "Migration
Background"),
                  make_tab(meta.links, var = "east", label = "East-West"))

descr <- Reduce(rbind, list_desc)

descr <- xtable::xtable(descr, caption = paste0("Descriptive Statistics for
Categorical Variables"))

# regression models

# simple party model

lm_only_party <- lapply(links_names, function(x) lm(paste0(x," ~ party"),
data = meta.links))

#full model

lm_full_model <- lapply(links_names, function(x) lm(paste0(x," ~ party*lrabw
```

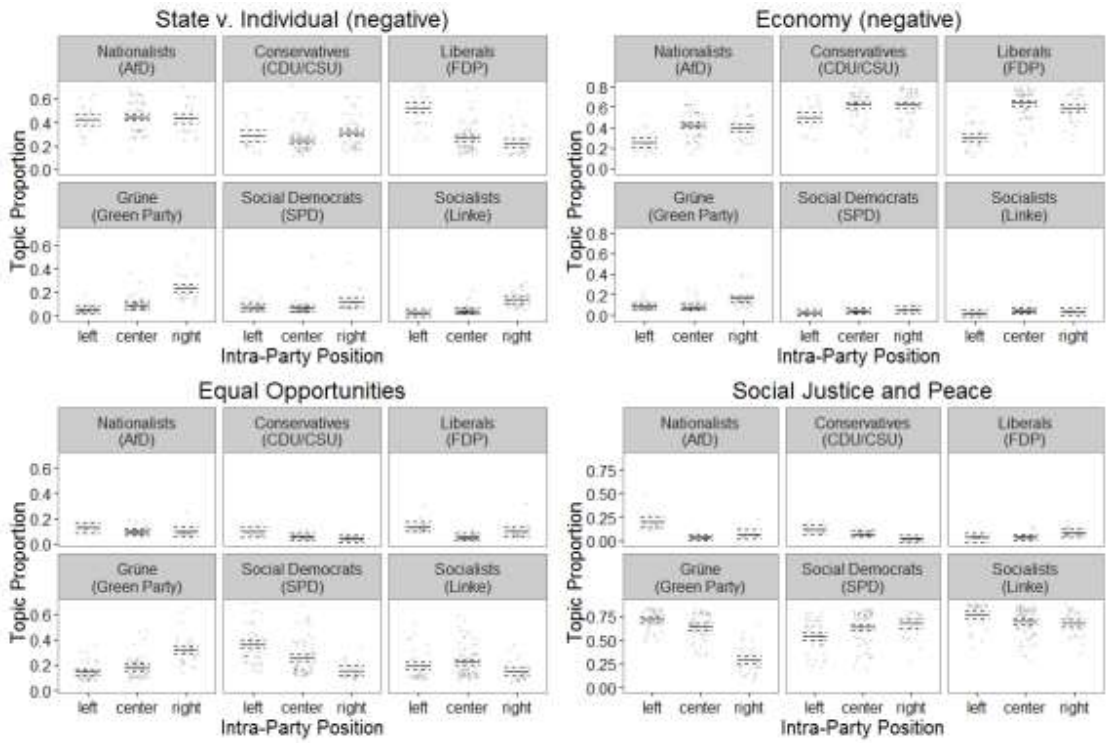
```
+ age + female + rural + edu + migrant + east"), data = meta.links))

# add all models to one list

mod_list_left <- vector("list", 8)

mod_list_left[seq(1,8,2)] <- lm_only_party
mod_list_left[seq(2,8,2)] <- lm_full_model

# export table

#stargazer(mod_list_left,
#column.labels = rep(c("State v. Ind.","Economy", "Eq. Opport.", "Soc.
Justice"),each = 2),
#style = "apsr",
#omit.stat = c("f", "ser", "rsq"),
#covariate.labels = c("CDU/CSU", "FDP", "SPD", "GREEN", "LEFT", "Center",
"Right-Wing", "Age", "Female",
# "Residence: Urban", "Education: University", "Education: In Training",
"Migration Background", "East Germany", "CDU/CSU * Center", "FDP * Center",
"SPD * Center", "GREEN * Center", "LEFT * Center", "CDU/CSU * Right-Wing",
"FDP * Right-Wing", "SPD * Right-Wing", "GREEN * Right-Wing", "LEFT * Right-
Wing"))

# predicted results

p <- lapply(lm_only_party, function(x) visreg(x, xvar = "party", plot = F))

q <- lapply(lm_full_model, function(x) visreg(x, xvar = "lrabw", by =
"party", plot = F))

# function for plotting the results

rename_parties <- function(x){

  x <- as.character(x)

  x[x == "AfD"] <- "Nationalists\n(AfD)"
  x[x == "CDU/CSU"] <- "Conservatives\n(CDU/CSU)"
  x[x == "FDP"] <- "Liberals\n(FDP)"
  x[x == "GREEN"] <- "Grüne\n(Green Party)"
  x[x == "SPD"] <- "Social Democrats\n(SPD)"
  x[x == "LEFT"] <- "Socialists\n(Linke)"

  x <- factor(x, levels = c("Nationalists\n(AfD)",
"Conservatives\n(CDU/CSU)", "Liberals\n(FDP)",
                            "Grüne\n(Green Party)", "Social
Democrats\n(SPD)", "Socialists\n(Linke)"))

  x
```

```
}

plot_fact <- function(x, main =  NULL, xlab = "xlab", ylab = "ylab", meta =
NULL, xstr = "", ystr = ""){

  data <- x$fit

  data$y <- data$visregFit
  data$x <- data$party
  data$p <- rename_parties(data$x)
  data$llci <- data$visregLwr
  data$ulci <- data$visregUpr

  meta$p <- rename_parties(meta[,xstr])
  meta$y <- meta[,ystr]

  ggplot(data, aes(x = p, y = y)) +
    geom_errorbar(width=0.5, size = .6, aes(y=y, ymax=y, ymin=y)) +
    geom_errorbar(width=0.5, size = .6, lty = 2, aes(y=llci, ymax=llci,
ymin=llci)) +
    geom_errorbar(width=0.5, size = .6, lty = 2, aes(y=ulci, ymax=ulci,
ymin=ulci)) +
    geom_jitter(data = meta, width =.5, alpha = 0.1, size =2/3) +
    theme_bw() +
    ggtitle(main) +
    xlab(xlab) +
    ylab(ylab) +
    theme(axis.line = element_line(colour = "black"),
          panel.grid.major = element_blank(),
          panel.grid.minor = element_blank(),
          panel.background = element_blank(),
          text = element_text(size = 15),
          plot.title = element_text(hjust = .5))

}

plot_int_fact <- function(x, main =  NULL, xlab = "xlab", ylab = "ylab", meta
= NULL, xstr = "", ystr = ""){

  data <- x$fit

  data$y <- data$visregFit
  data$x <- data$lrabw

  data$by <- rename_parties(data$party)
  data$llci <- data$visregLwr
  data$ulci <- data$visregUpr

  meta$x <- meta[,xstr]
```

```
  meta$by <- rename_parties(meta[,"party"])
  meta$y <- meta[,ystr]

  ggplot(data, aes(x = x, y = y)) +
    geom_errorbar(width=0.5, size = .6, aes(y=y, ymax=y, ymin=y)) +
    geom_errorbar(width=0.5, size = .6, lty = 2, aes(y=llci, ymax=llci,
ymin=llci)) +
    geom_errorbar(width=0.5, size = .6, lty = 2, aes(y=ulci, ymax=ulci,
ymin=ulci)) +
    geom_jitter(data = meta, width =.5, alpha = 0.1, size =2/3) +
    theme_bw() +
    ggtitle(main) +
    xlab(xlab) +
    ylab(ylab) +
    facet_wrap(~ by) +
    theme(axis.line = element_line(colour = "black"),
          panel.grid.major = element_blank(),
          panel.grid.minor = element_blank(),
          panel.background = element_blank(),
          text = element_text(size = 15),
          plot.title = element_text(hjust = .5))

}

# gen plots for party model

p1 <- plot_fact(p[[1]], meta = meta.links, xstr = "party", ystr =
"state_vs_ind", ylab = "Topic Proportion", main = "State v. Individual", xlab
= "")
p2 <- plot_fact(p[[2]], meta = meta.links, xstr = "party", ystr = "economy",
ylab = "Topic Proportion", xlab = "", main = "Economy (negative)")
p3 <- plot_fact(p[[3]], meta = meta.links, xstr = "party", ystr =
"equal_opportunities", ylab = "Topic Proportion", main = "Equal
Opportunities", xlab = "")
p4 <- plot_fact(p[[4]], meta = meta.links, xstr = "party", ystr =
"social_justice", ylab = "Topic Proportion", xlab = "", main = "Social
Justice and Peace")

# combine plots

grid.arrange(p1,p2,p3,p4)
```




```
# gen interaction plots

q1 <- plot_int_fact(q[[1]], meta = meta.links, xstr = "lrabw", ystr =
"state_vs_ind", ylab = "Topic Proportion", main = "State v. Individual
(negative)", xlab = "Intra-Party Position")
q2 <- plot_int_fact(q[[2]], meta = meta.links, xstr = "lrabw", ystr =
"economy", ylab = "Topic Proportion", main = "Economy (negative)", xlab =
"Intra-Party Position")
q3 <- plot_int_fact(q[[3]], meta = meta.links, xstr = "lrabw", ystr =
"equal_opportunities", ylab = "Topic Proportion", main = "Equal
Opportunities", xlab = "Intra-Party Position")
q4 <- plot_int_fact(q[[4]], meta = meta.links, xstr = "lrabw", ystr =
"social_justice", ylab = "Topic Proportion", main = "Social Justice and
Peace", xlab = "Intra-Party Position")

#combine plots

grid.arrange(q1,q2,q3,q4)
```




```
########################################
########################################
# STM for RIGHT ########################
########################################
########################################

processed <- textProcessor(gles.data$rechts, metadata=gles.data,
language="german", onlycharacter=TRUE)

## Building corpus...
## Converting to Lower Case...
## Removing stopwords...
## Removing numbers...
## Removing punctuation...
## Stemming...
## Creating Output...

out.rechts <- prepDocuments(processed$documents, processed$vocab,
processed$meta, lower.thresh = 2)

## Removing 1337 of 1675 terms (1584 of 4313 tokens) due to frequency
## Removing 30 Documents with No Words
## Your corpus now has 700 documents, 338 terms and 2729 tokens.

docs.rechts <- out.rechts$documents
vocab.rechts <- out.rechts$vocab
meta.rechts <- out.rechts$meta

# all models
```

```r
#stm.select.rechts <- selectModel(docs.rechts, vocab.rechts, K=3,
prevalence=~ party*lrabw, max.em.its=500, runs=20, data=meta.rechts, LDAbeta
= FALSE)

#stmModel.rechts <- stm(docs.rechts, vocab.rechts, K=3, prevalence=~
party*lrabw, seed = 1737356, max.em.its=500, data=meta.rechts, LDAbeta =
FALSE)

#save(stmModel.rechts,file="stm_rechts_final.Rda")

stmModel.rechts <- load("stm_rechts_final.Rda") %>% get()

# export all labels for appendix

all_labels <- labelTopics(stmModel.rechts)

all_labels <- all_labels[1:4]

all_labels <- lapply(all_labels, function(x) as.data.frame(x,
stringsAsFactors = F))

all_labels <- Reduce(rbind, all_labels)

topic_labels <- c("Freedom and Self-Responsibility","Xenophobia","Status
Quo")

all_labels$Topic <- topic_labels

all_labels$Type <- rep(names(labelTopics(stmModel.rechts)[1:4]), each = 3)

all_labels <- all_labels[,c(8:9,1:7)]

all_labels <- all_labels[order(all_labels$Topic,all_labels$Type), ]

library(xtable)

all_labels <- xtable(all_labels, caption = paste0("Different Label Types for
the term ``right''"))

# 4 most repr. quotes for appendix

q1 <- findThoughts(stmModel.rechts, texts=meta.rechts$rechts, n=4,
topics=1)$docs[[1]]
q2 <- findThoughts(stmModel.rechts, texts=meta.rechts$rechts, n=4,
topics=2)$docs[[1]]
q3 <- findThoughts(stmModel.rechts, texts=meta.rechts$rechts, n=4,
topics=3)$docs[[1]]
```

```r
most_rep <- c(q1,q2,q3)

most_rep <- data.frame(rep(topic_labels, each = 4), most_rep,
stringsAsFactors = F)

colnames(most_rep) <- c("Topic", "Quotes")

most_rep <- xtable(most_rep, caption = paste0("Four most representative
quotes of each topic for the term ``right''"))

# names for three topics

titel_r <- c("freedom_and_selfr","xenophobia","nationalistic")

# add proportions to meta data

meta.rechts[,titel_r] <- stmModel.rechts$theta %>% as.data.frame()

# descriptive statistics

#stargazer(meta.rechts[,c(titel_r,"age")])

list_desc <- list(make_tab(meta.rechts, var = "party", label = "Party"),
make_tab(meta.rechts, var = "lrabw", label = "Intra-Party Position"),
make_tab(meta.rechts, var = "female", label = "Gender"),
make_tab(meta.rechts, var = "rural", label = "Residence"),
make_tab(meta.rechts, var = "edu", label = "Education"),
make_tab(meta.rechts, var = "migrant", label = "Migration Background"),
make_tab(meta.rechts, var = "east", label = "East-West"))

descr <- Reduce(rbind, list_desc)

descr <- xtable(descr, caption = paste0("Descriptive Statistics for
Categorical Variables"))

# gen table for main paper

# average topic proportions

topic_proportions_r <- sapply(titel_r, function(x) mean(meta.rechts[,x]))

# frex words

frex_r <- sapply(1:3, function(x)
paste(labelTopics(stmModel.rechts)$frex[x,], collapse = ", "))

# translated frex words

frex_trans_r <- c("self-responsibility, responsibility, free market, liberty,
```

```
patriotism, family, value",
                "racism, intolerance, nationalism, capital, german,
interests, germany",
                "exclusion, foreclosure, bottom, national, egoism, think,
redistribution")

# most representative quotes

findThoughts(stmModel.rechts, texts=meta.rechts$rechts, n=1,
topics=1)$docs[[1]]
```

```
## [1] "Diese historischen Begriffe sind nicht mehr gültig. Die Politik
war/ist dabei eher bürgerlich, individuell orientiert.Jeder Bürger sorgt erst
einmal für sich und seine Familie und in letzter Instanz kann der Staat
helfend eingreifen. Die Freiheit des  Individuums steht dabei im Vordergrund.
Fremdbestimmung, Vorschriften und Beschneidungen der persönlichen Freiheit
durch den Staat werden abgelehnt. Es gibt hoheitliche Staatsaufgaben wie
Verteidigung und Innere Sicherheit, die vom Staat wahrgenommen wer den. Alles
andere überläßt man den Bürgerinnen und Bürgern."
```

```
findThoughts(stmModel.rechts, texts=meta.rechts$rechts, n=1,
topics=2)$docs[[1]]
```

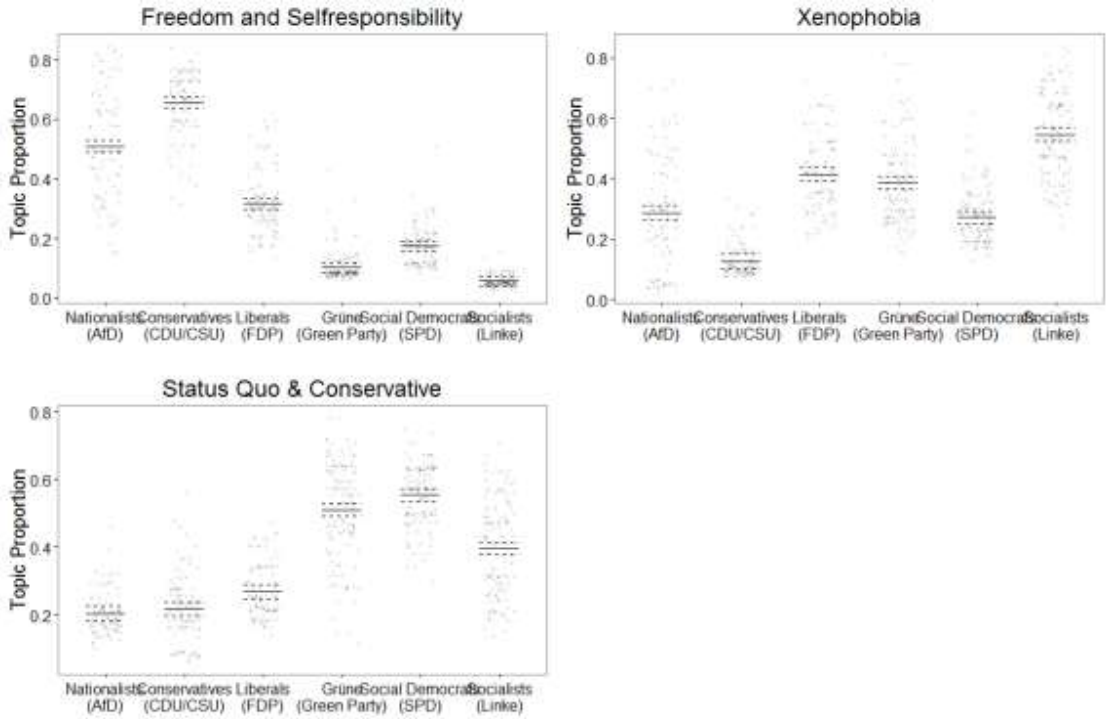
```
## [1] "Konservativismus, Nationalismus, Sexismus, Homophobie, Abschiebung,
NSU, Antisemitismus, Krieg, Verschwörungsideologie, Deutschland eben"
```

```
findThoughts(stmModel.rechts, texts=meta.rechts$rechts, n=4,
topics=3)$docs[[1]]
```

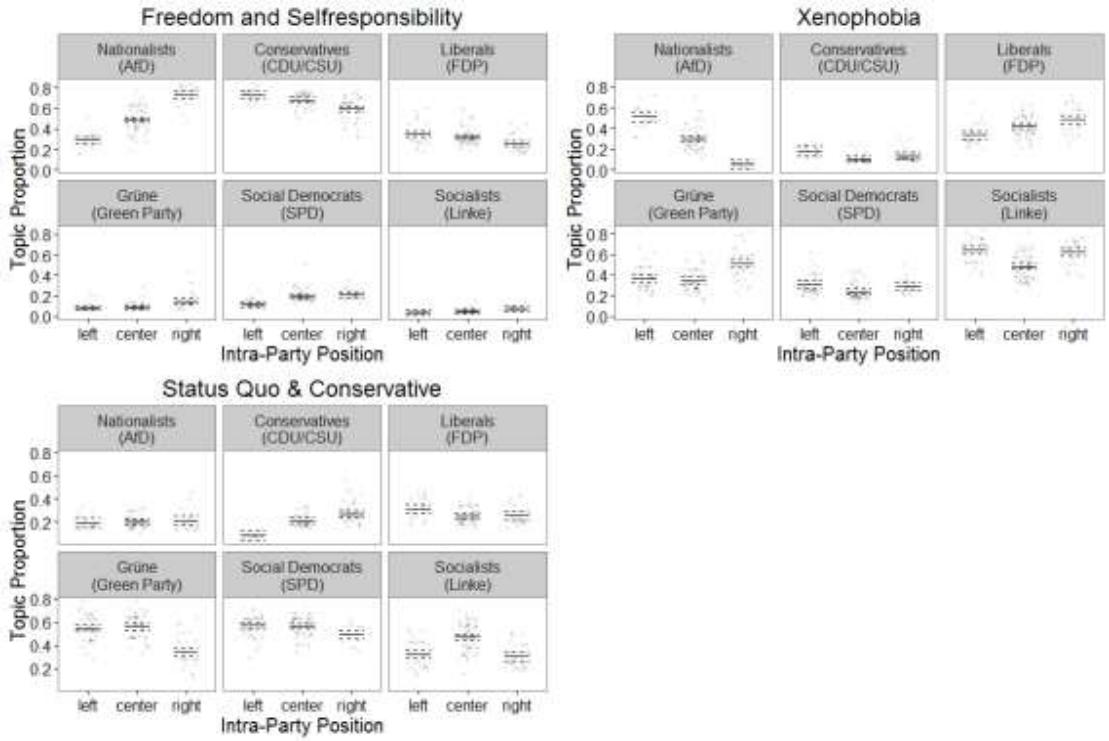
```
## [1] "patriotisch/ nationalistisch, Ausländern gegenüber eher ablehnend,
Sozialschwachen gegenüber eher ablehnend"
## [2] "Status-quo-Denken, eher auf das nationale schauend, zu
wirtschaftsfreundlich, zu sehr dem Leistungsprinzip unterstellt"
## [3] "konservativ, verharren im Status quo, Abschottung vor Fremden"
## [4] "konservativ, national orientiert, privatwirtschaftlich orientiert"
```

```
# translate thoughts

thoughts_right_trans <- c("\\lbr{'...The policies are rather
liberal,\\individually orientated. Every citizen is primarily\\responsible
for themselves, support by the state\\ is the last resort. The freedom of the
individual has priority...}",
                          "\\lbr{Conservatism, nationalism, sexism,
homphobia,\\deportation, NSU, antisemitism, war,\\conspiracy theory, simply
Germany}",
                          "\\lbr{patriotic / nationalistic,\\rather
dismissive against foreigners\\ and socially disadvantaged.}")

# gen list with information

sum_t1_r <- list(Label = "Freedom \\& \\lbr{Self-Responsibility}", FREX =
frex_trans_r[1], Quote = thoughts_right_trans[1], Proportion =
```

```r
as.character(round(topic_proportions_r[1]*100 ,2)))
sum_t2_r <- list(Label = "Xenophobia", FREX = frex_trans_r[2], Quote =
thoughts_right_trans[2], Proportion =
as.character(round(topic_proportions_r[2]*100 ,2)))
sum_t3_r <- list(Label = "Status Quo / Conservative", FREX = frex_trans_r[3],
Quote = thoughts_right_trans[3], Proportion =
as.character(round(topic_proportions_r[3]*100 ,2)))

# combine data

right_summary <- rbind(sum_t1_r,sum_t2_r) %>% rbind(.,sum_t3_r)

#export table

right_tab <- xtable(right_summary)

# run regressions

# party model

lms_r <- lapply(titel_r, function(x) lm(paste0(x," ~ party"), data =
meta.rechts))

# full model

lms_full_r <- lapply(titel_r, function(x) lm(paste0(x," ~ party*lrabw + age +
female + rural + edu + migrant + east"), data = meta.rechts))

# predict values

p_r <- lapply(lms_r, function(x) visreg(x, xvar = "party", plot = F))

p_full_r <- lapply(lms_full_r, function(x) visreg(x, xvar = "lrabw", by =
"party", plot = F))

# plot for party model

p_r1 <- plot_fact(p_r[[1]], meta = meta.rechts, ystr = "freedom_and_selfr",
xstr = "party", xlab = "", ylab = "Topic Proportion", main = "Freedom and
Selfresponsibility")
p_r2 <- plot_fact(p_r[[2]], meta = meta.rechts, ystr = "xenophobia", xstr =
"party", xlab = "", ylab = "Topic Proportion", main = "Xenophobia")
p_r3 <- plot_fact(p_r[[3]], meta = meta.rechts, ystr = "nationalistic", xstr
= "party", xlab = "", ylab = "Topic Proportion", main = "Status Quo &
Conservative")

# gen plot

grid.arrange(p_r1, p_r2, p_r3, ncol = 2)
```

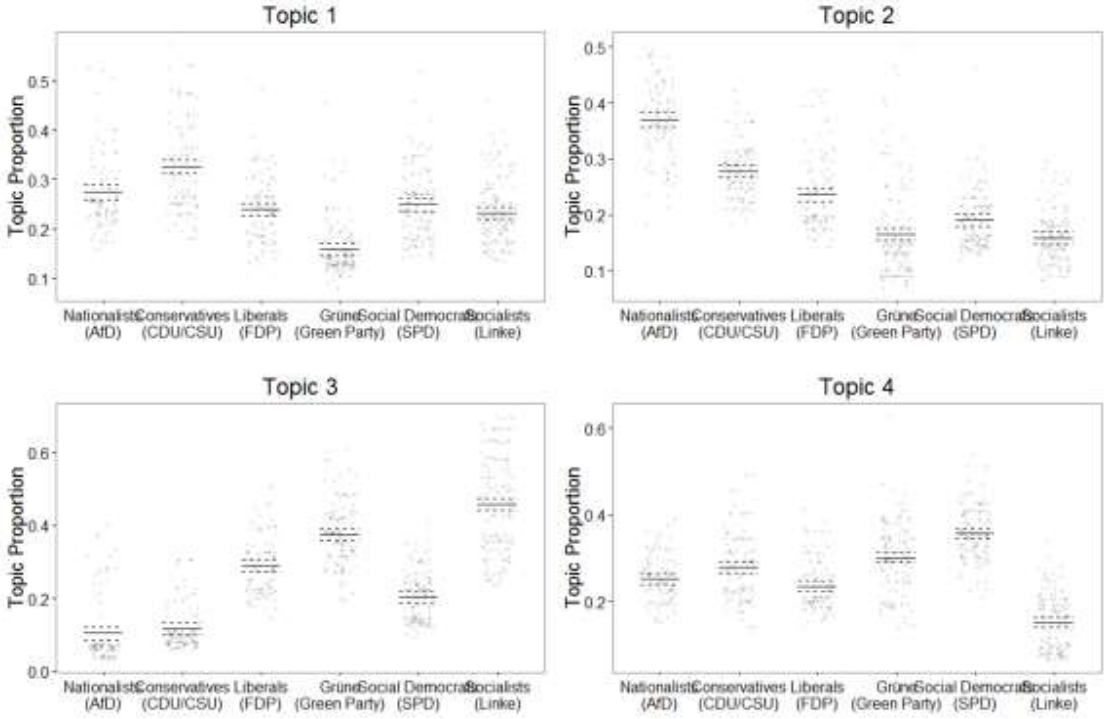



```
# plots for interaction model

q_r1 <- plot_int_fact(p_full_r[[1]], meta = meta.rechts, ystr =
"freedom_and_selfr", xstr = "lrabw", xlab = "Intra-Party Position", ylab =
"Topic Proportion", main = "Freedom and Selfresponsibility")
q_r2 <- plot_int_fact(p_full_r[[2]], meta = meta.rechts, ystr = "xenophobia",
xstr = "lrabw", xlab = "Intra-Party Position", ylab = "Topic Proportion",
main = "Xenophobia")
q_r3 <- plot_int_fact(p_full_r[[3]], meta = meta.rechts, ystr =
"nationalistic", xstr = "lrabw", xlab = "Intra-Party Position", ylab = "Topic
Proportion", main = "Status Quo & Conservative")

# plot interactions

grid.arrange(q_r1, q_r2, q_r3, ncol = 2)
```




```
# export regression models

lm_only_party_r <- lapply(titel_r, function(x) lm(paste0(x," ~ party"), data
= meta.rechts))
lm_full_model_r <- lapply(titel_r, function(x) lm(paste0(x," ~ party*lrabw +
age + female + rural + edu + migrant + east"), data = meta.rechts))

mod_list_right <- vector("list", 6)

mod_list_right[seq(1,6,2)] <- lm_only_party_r
mod_list_right[seq(2,6,2)] <- lm_full_model_r

#stargazer::stargazer(mod_list_right,
#column.labels = rep(c("Freedom","Xenophobia","Status quo"),each = 2),
#style = "apsr",
#omit.stat = c("f", "ser", "rsq"),
#covariate.labels = c("CDU/CSU", "FDP", "SPD", "GREEN", "LEFT", "Center",
"Right-Wing", "Age", "Female", "Residence: Urban", "Education: University",
"Education: In Training", "Migration Background", "East Germany", "CDU/CSU *
Center", "FDP * Center", "SPD * Center", "GREEN * Center", "LEFT * Center",
"CDU/CSU * Right-Wing", "FDP * Right-Wing", "SPD * Right-Wing", "GREEN *
Right-Wing", "LEFT * Right-Wing"))


#####################################
# STM RIGHT WITH K = 4
#####################################
```

```r
# same model specification and values as with K = 3

stmModel.rechts4 <- stm(docs.rechts, vocab.rechts, K = 4, prevalence=~
party*lrabw, seed = 1737356, max.em.its=500, data=meta.rechts, LDAbeta =

# get labels
labels <- labelTopics(stmModel.rechts4)

labels <- labels$frex

frex_r <- as.matrix(sapply(1:4, function(x) paste(labels[x,], collapse = ",
")))

frex_tab <- xtable(frex_r, caption = paste0("FREX words for four topic
solution"))

# add proportions

meta.rechts[,paste0("t",1:4)] <- stmModel.rechts4$theta %>% as.data.frame()

# estimate party model

lms_r <- lapply(paste0("t",1:4), function(x) lm(paste0(x," ~ party"), data =
meta.rechts))

# predict values

p_r <- lapply(lms_r, function(x) visreg(x, xvar = "party", plot = F))

p_r1 <- plot_fact(p_r[[1]], meta = meta.rechts, ystr = "t1", xstr = "party",
xlab = "", ylab = "Topic Proportion", main = "Topic 1")
p_r2 <- plot_fact(p_r[[2]], meta = meta.rechts, ystr = "t2", xstr = "party",
xlab = "", ylab = "Topic Proportion", main = "Topic 2")
p_r3 <- plot_fact(p_r[[3]], meta = meta.rechts, ystr = "t3", xstr = "party",
xlab = "", ylab = "Topic Proportion", main = "Topic 3")
p_r4 <- plot_fact(p_r[[4]], meta = meta.rechts, ystr = "t4", xstr = "party",
xlab = "", ylab = "Topic Proportion", main = "Topic 4")


# plots

grid.arrange(p_r1, p_r2, p_r3, p_r4, ncol = 2)
```


Topic 1
Topic 2
Topic 3
Topic 4
Topic Proportion
Nationalists (AfD)
Conservatives (CDU/CSU)
Liberals (FDP)
Grüne (Green Party)
Social Democrats (SPD)
Socialists (Linke)

D

APPENDIX FOR 'IDEOLOGICAL ALTERNATIVE? ANALYZING AFD CANDIDATES' IDEAL POINTS VIA BLACK BOX SCALING'

D.1 ADDITIONAL TABLES

Table D.1: Coding and Definition of Variables

Variable	Definition (categories)	Variable name(s) GLES candidate survey dataset
Party	Candidate's party affiliation (CDU, CSU, SPD, FDP, Green Party, Left Party, AfD)	a1
East-West	Candidature in Western/Eastern Germany (0 = Western, 1 = Eastern)	bundesland (recoded)
Age	Age of candidate in years	e3 (own computation)
Vocational training	Candidate's vocational training (university degree, vocational training, none/still studying or in training)	e12 (recoded)
Gender	Candidate's gender (0 = male, 1 = female)	e2 (recoded)
Migration background	Candidate's migration background (Yes if one parent was born outside of Germany) (0 = no, 1 = yes)	e6a, e6b (own computation)
Place of residence	Candidate's self-descripted place of residence (0 = rural, 1 = urban)	e8 (recoded)
Socialism-liberalism scale	Candidate's position on the socialism-liberalism scale (1. Dimension)	Blackbox scaling of c2a, c2b, c2c, c2d, c2e, c2f, c2g, c2h, c2i, c2j, c2k, c2l
Libertarian-authoritarian scale	Candidate's position on the libertarian-authoritarian scale (2. Dimension)	
Weight	Basic analytical candidate weight	wei_kandi

Table D.2: Descriptive statistics

Variable	Category	Percent
Socialism-Liberalism Scale	Mean	0,00
	SD	0,31
Libertarian Authoritarian Scale	Mean	0,00
	SD	0,21
Party	CDU	15,4
	CSU	2,5
	SPD	19,5
	FDP	15,0
	Green Party	17,8
	Left Party	16,4
	AfD	13,4
East-West dummy	West	85,1
	East	14,9
Vocational training	No educational/vocational training/ still studying	7,0
	Vocational Training	29,2
	University degree	63,8
Gender	Male	69,8
	Female	30,2
Place of residence	Rural	67,1
	Urban	32,9
Migration background	No	82,6
	Yes	17,4
Age	Mean	47,3
	SD	11,7
Weight	Mean	1,03
	SD	0,20

D.2 BASIC SPACE ESTIMATES VS. PRINCIPAL COMPONENT ANALYSIS

In addition to Blackbox scaling we applied a methodologically simpler approach to the twelve issue scales by running a principal component analysis with Varimax rotation. This is similar to the research design by Evans, Heath, and Lalljee (1996). The following table displays the results of the principal component analysis. Overall, the result and identification of the dimensions corresponds highly to that of the Blackbox analysis.

Table D.3: Principal Component Analysis (Varimax rotation)

	Socialism-Liberalism	Libertarian-Authoritarian
Government should create measure to decrease income disparities	.841	
Government should not intervene economy (r)	-.779	
The provision of stable social security should be most important goal of government	.763	
For environmental protection, extensive measures are needed	.732	
Women should be privileged in application and promotion processes	.684	
Immigrants are good for German economy		-.756
Same-sex marriage should be forbidden by law (r)		.744
Delinquents should be punished harder than to date (r)		.706
Women should decide on abortion on their own		-.600
There should be a female quota in supervisory board of large companies	.762	-.380
Energy supply should be secured with nuclear power	-.653	.371
Immigrants should be obligated to assimilate to German culture	-.348	.696
Variance explained	*34.5 %*	*24.2. %*
Cronbach's Alpha	*0.85*	*0.72*

Similar to Evans, Heath, and Lalljee (1996) we computed two variables that add the values of the respective variables. Those items that show loadings on both components (lower panel of Table D.3), have been excluded from the computation of the two ideological scales. The socialism-liberalism scale is an additive index including five items (upper panel of Table D.3). The libertarian-authoritarian scale is an additive index including four items (mid panel of Table D.3). In cases in which the wording of the item opposes the direction of the scale, the answer codes have been reversed. In order to ease the interpretation the two additive scales have been standardized on the range of 1 to 5. Both additive scales show high internal consistency with Cronbach's Alpha values of 0.85 and 0.72 respectively.

We compare this approach to basic space estimates by looking at the correlation between the variables for the respective dimension gained from the two different approaches. The results are presented in the following figures and show a high consistency between both measures.

Figure D.1: Correlation between additive scale and Blackbox scaling estimates (first dimension)

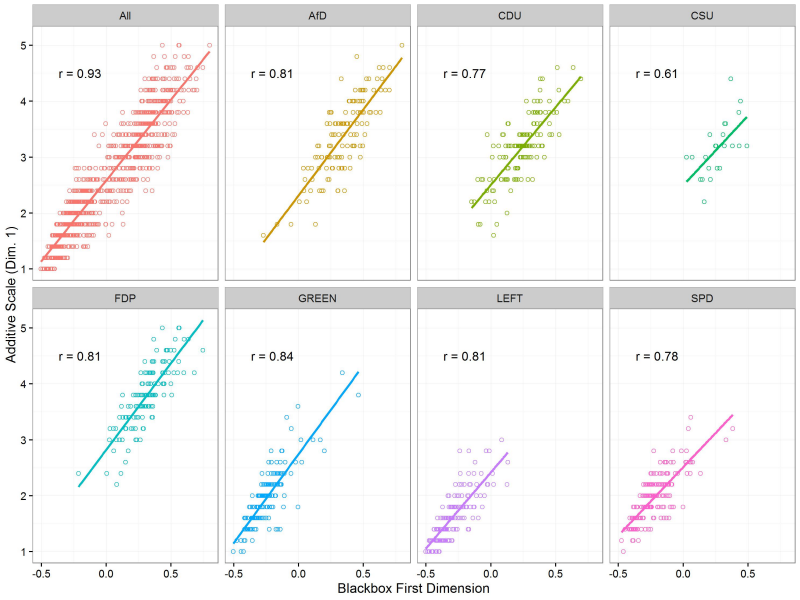
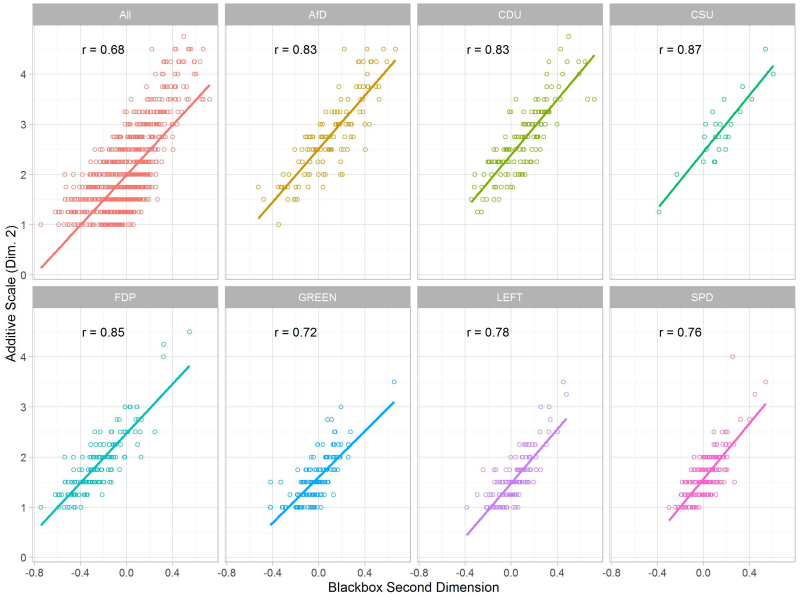


Figure D.2: Correlation between additive scale and Blackbox scaling estimates (second dimension)



E

APPENDIX FOR 'VARIETIES OF LEGISLATIVE VOTING PATTERNS: THE IMPACT OF MAJORITY, MINORITY AND CARETAKER GOVERNMENTS'

Figure E.1: Second Dimension in the fourth Chamber of Deputies

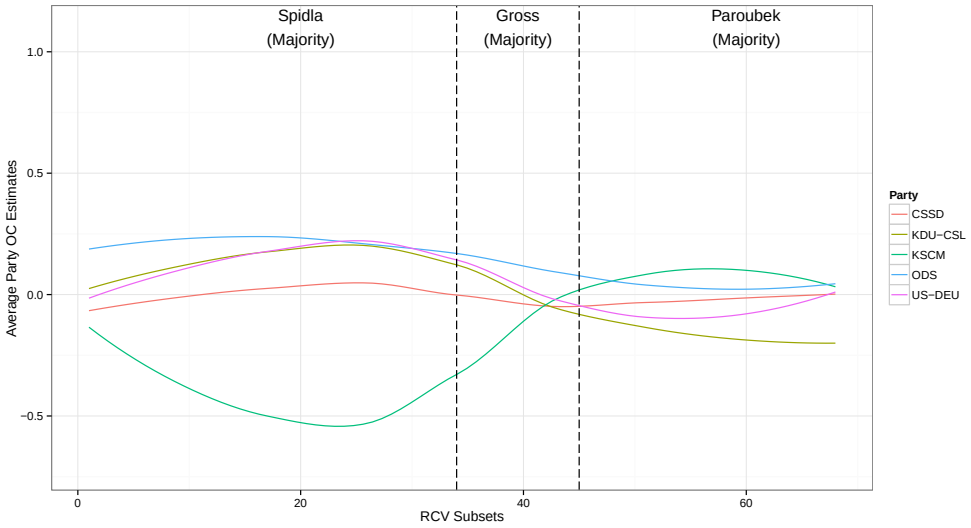


Figure E.2: Comparison of CHES and CMP Data

Note: Lines in the plot do not display OLS fits, but the diagonal (x=y). Cabinets above the line show a higher average R^2 for Left Right compared to Government Opposition.

Figure E.3: Raw (no loess) positions of Czech parties in the second Chamber of Deputies.

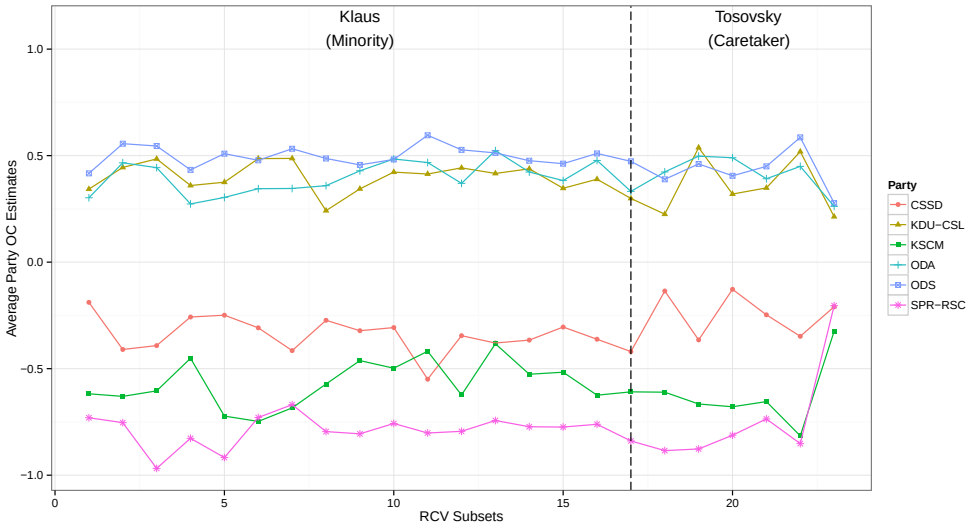


Figure E.4: Raw (no loess) positions of Czech parties in the third Chamber of Deputies.

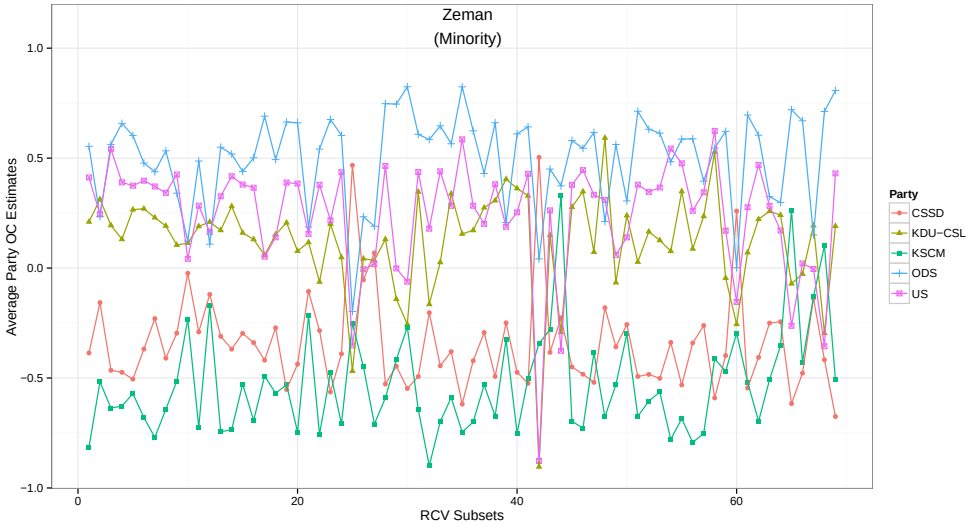


Figure E.5: Raw (no loess) positions of Czech parties in the fourth Chamber of Deputies.

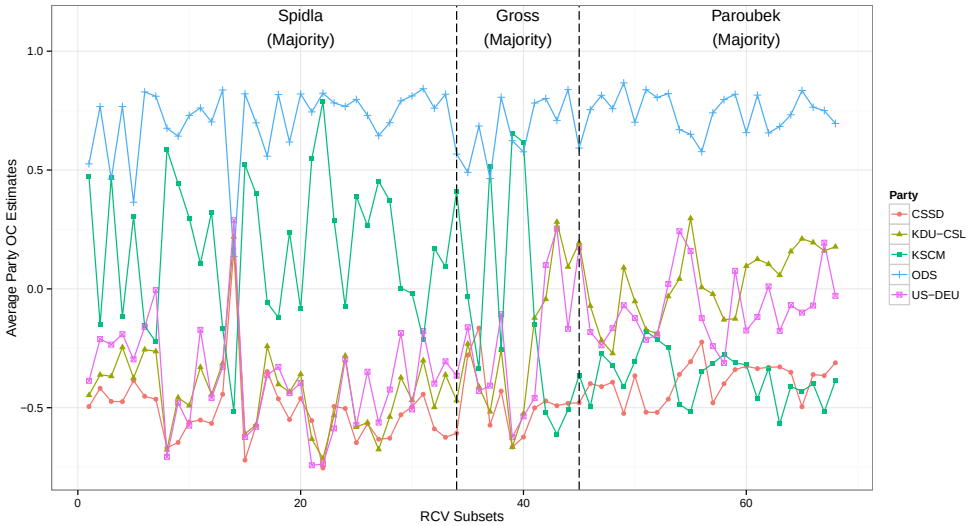


Figure E.6: Raw (no loess) positions of Czech parties in the fifth Chamber of Deputies.

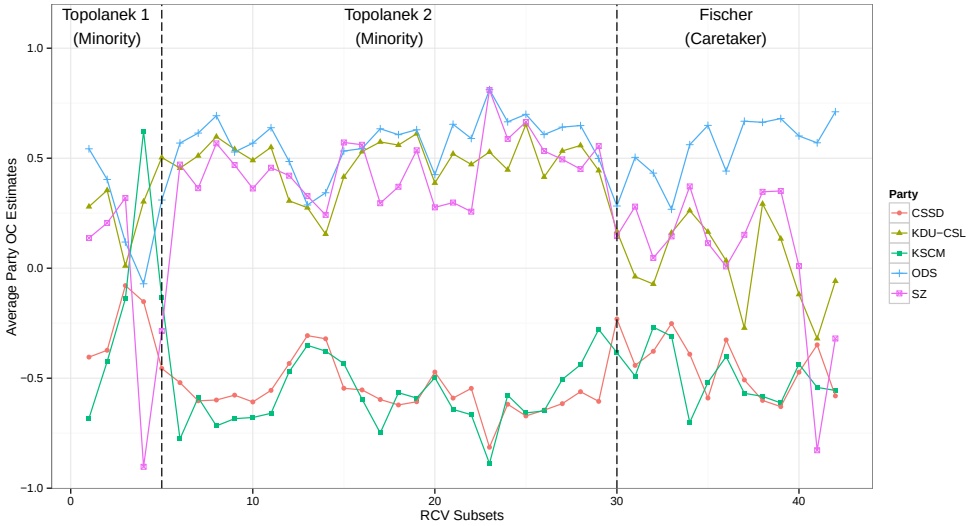
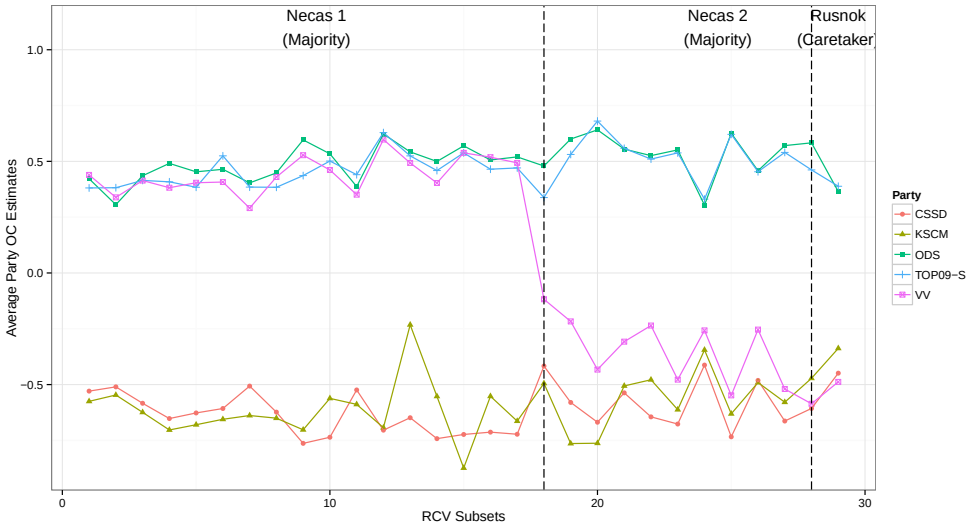


Figure E.7: Raw (no loess) positions of Czech parties in the sixth Chamber of Deputies.



BIBLIOGRAPHY

Abedi, A. and T. C. Lundberg (2008). "Doomed to Failure? UKIP and the Organisational Challenges Facing Right-Wing Populist Anti-Political Establishment Parties." *Parliamentary Affairs* 62 (1), pp. 72–87.

Abelson, R. P. and A. Levi (1985). "Decision Making and Decision Theory." In: *Handbook of Social Psychology, Vol. 1*. Ed. by G. Lindzey and E. Aronson. Wien: Wiley, pp. 231–309.

Achen, C. (1975). "Mass political attitudes and the survey response." *American Political Science Review* 69 (4), pp. 1218–1231.

Achen, C. and L. Bartels (2016). *Democracy for Realists. Why Elections Do Not Produce Responsive Government*. Princeton: Princeton University Press.

Ai, C. and E. C. Norton (2003). "Interaction terms in logit and probit models." *Economic Letters* 80 (1), pp. 123–129.

Aldrich, J. H. and R. D. McKelvey (1977). "A method of scaling with applications to the 1968 and 1972 presidential elections." *American Political Science Review* 71 (1), pp. 111–130.

Anders, L. H. (2014). "Wen kümmert schon Europa? Europa als Wahlkampfthema bei der Bundestagswahl 2013." *Zeitschrift für Parlamentsfragen* 45 (1), pp. 55–72.

Armstrong, D. A., R. Bakker, R. Carroll, C. Hare, K. T. Poole, and H. Rosenthal (2014). *Analyzing Spatial Models of Choice and Judgment with R*. Hoboken: Taylor and Francis.

Arzheimer, K. (2015). "The AfD: Finally a Successful Right-Wing Populist Eurosceptic Party for Germany?" *West European Politics* 38 (3), pp. 535–556.

Arzheimer, K. and J. Evans (2012). "Geolocation and voting: candidate-voter distance effects on party choice in the 2010 General Election in England." *Political Geography* 31 (5), pp. 301–310.

Arzheimer, K. and J. Evans (2014). "Candidate Geolocation and Voter Choice in the 2013 English County Council Elections." *Research & Politics* doi: 10.1177 / 2053168014538769.

Axelrod, R. (1970). *Conflict of Interest: A Theory of Divergent Goals with Applications to Politics*. Chicago: Markham.

Bakker, R., S. Jolly, J. Polk, and K. Poole (2014). "The European Common Space: Extending the Use of Anchoring Vignettes." *The Journal of Politics* 76 (4), pp. 1089–1101.

Bartels, L. M. (1996). "Uninformed Votes: Information Effects in Presidential Elections." *American Journal of Political Science* 40 (1), pp. 194–230.

Bartolini, S. (2000). *The Political Mobilization of the European Left, 1860–1980: The Class Cleavage*. Cambridge: Cambridge University Press.

Bauer, P. C., P. Barbera, K. Ackermann, and A. Venetz (2015). "Vague Concepts in Survey Questions: A General Problem Illustrated with the Left-Right Scale." *Working Paper*.

Baumann, M., M. Debus, and J. Müller (2015). "Personal Characteristics of MPs and Legislative Behavior in Moral Policy Making." *Legislative Studies Quarterly* 40 (2), pp. 179–210.

Behnke, J. (2009). "Die politische Theorie des Rational Choice: Anthony Downs." In: *Politische Theorien der Gegenwart II*. Ed. by A. Brodocz and G. S. Schaal. Beck, pp. 497–528.

Benoit, K. and M. Laver (2006). *Party Policy in Modern Democracies*. London: Routledge.

Berbuir, N., M. Lewandowsky, and J. Siri (2015). "The AfD and its Sympathisers: Finally a Right-Wing Populist Movement in Germany?" *German Politics* 24 (2), pp. 154–178.

Bernauer, J. and T. Bräuninger (2009). "Intra-Party Preference Heterogeneity and Faction Membership in the 15th German Bundestag. A Computational Text Analysis of Parliamentary Speeches." *German Politics* 18 (3), pp. 385–402.

Black, D. (1958). *The Theory of Committees and Elections*. Cambridge: Cambridge University Press.

Blei, D. M., A. Y. Ng, and M. I. Jordan (2003). "Latent Dirichlet Allocation." *Journal of Machine Learning Research* 3, pp. 993–1022.

Blumenau, J., A. C. Eggers, D. Hangartner, and S. Hix (2016). "Open/-Closed List and Party Choice: Experimental Evidence from the UK." *British Journal of Political Science* doi: 10.1017 / S0007123415000629.

Bobbio, N. (1996). *Left and Right: The Significance of a Political Distinction*. Cambridge: Cambridge University Press.

Bowler, S. and D. M. Farrell (1993). "Legislator Shirking and Voter Monitoring: Impacts of European Parliament Electoral Systems upon Legislator-Voter Relationships." *Journal of Common Market Studies* 31 (1), pp. 45–70.

Brambor, T., W. Clark, and M. Golder (2006). "Understanding Interaction Models: Improving Empirical Analyses." *Political Analysis* 14 (1), pp. 63–82.

Bräuninger, T., M. Brunner, and T. Däubler (2012). "Personal vote-seeking in flexible list systems: How electoral incentives shape Belgian MPs' bill initiation behaviour." *European Journal of Political Research* 51 (5), pp. 607–645.

Bräuninger, T., J. Müller, and C. Stecker (2016). "Modeling Preferences Using Roll Call Votes in Parliamentary Systems." *Political Analysis* 24 (2), pp. 189–210.

Cain, B., J. Ferejohn, and M. Fiorina (1987). *The Personal Vote: Constituency Service and Electoral Independence*. Harvard: Harvard University Press.

Cameron, C. and P. Trivedi (2010). *Microeconometrics Using Stata*. Texas: Stata Press.

Campbell, R. and P. Cowley (2014). "What Voters Want: Reactions to Candidate Characteristics in a Survey Experiment." *Political Studies* 62 (4), pp. 745–765.

Carey, J. M. and M. S. Shugart (1995). "Incentives to cultivate a personal vote: A rank ordering of electoral formulas." *Electoral Studies* 14 (4), pp. 417–439.

Carmines, E. G. and N. J. D'Amico (2015). "The new look in political ideology research." *Annual Review of Political Science* 18, pp. 205–216.

Carroll, R. and K. Poole (2014). "Roll Call Analysis and the Study of Legislatures." In: *The Oxford Handbook of Legislative Studies*. Ed. by S. Martin, T. Saalfeld, and K. W. Strøm. Oxford: Oxford University Press, pp. 103–124.

Carrubba, C. J., M. Gabel, L. Murrah, R. Clough, E. Montgomery, and R. Schambach (2006). "Off the record: unrecorded legislative votes, selection bias and roll-call vote analysis." *British Journal of Political Science* 36 (4), pp. 691–704.

Cheng, C. and M. Tavits (2011). "Informal Influences in Selecting Female Political Candidates." *Political Research Quarterly* 64 (2), pp. 460–471.

Clark, A. (2012). *Political parties in the UK*. Basingstoke: Palgrave Macmillan.

Coman, E. (2015). "Dimensions of political conflict in West and East: An application of vote scaling to 22 European parliaments." *Party Politics* doi: 10.1177 / 1354068815593454.

Conover, P. J. and S. Feldman (1981). "The origins and meanings of liberal/conservative self-identifications." *American Journal of Political Science* 25 (4), pp. 617–645.

Conrad, C. R. and S. N. Golder (2010). "Measuring government duration and stability in Central Eastern European democracies." *European Journal of Political Research* 49 (1), pp. 119–150.

Converse, P. E. (1964). "The nature of belief systems in mass publics." In: *Ideology and Discontent*. Ed. by D. E. Apter. New York: Free Press, pp. 206–261.

Corbetta, P., N. Cavazza, and M. 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), pp. 622–641.

Cox, G. (2001). "Introduction to the Special Issue." *Political Analysis* 9 (3), pp. 189–191.

Crouch, C. (2002). *Post-Democracy*. Cambridge: Malden.

Cutler, F. (2002). "The Simplest Shortcut of All: Sociodemographic Characteristics and Electoral Choice." *Journal of Politics* 64 (2), pp. 466–490.

Dalton, R. (2006). "Social modernization and the end of ideology debate: patterns of ideological polarization." *Japanese Journal of Political Science* 7 (1), pp. 1–22.

Darcy, R. and I. McAllister (1990). "Ballot position effects." *Electoral Studies* 9 (1), pp. 5–17.

Darcy, R. (1986). "The Western Political Quarterly." *The Western Political Quarterly* 39 (4), p. 648.

David, K. (2010). "Wechselfälle des Wahlrechts in Hamburg. Oder: Die Verhinderung eines weiteren Volksentscheids." *Zeitschrift für Parlamentsfragen* 41 (3), pp. 598–622.

De Vries, C. E., A. Hakhverdian, and B. Lancee (2013). "The dynamics of voters' left/right identification: the role of economic and cultural attitudes." *Political Science Research and Methods* 1 (2), pp. 223–238.

Debus, M. and T. Faas (2013). "Die Piratenpartei in der ideologisch-programmatischen Parteienkonstellation Deutschlands: Das Füllen einer Lücke?" In: *Die Piratenpartei*. Ed. by O. Niedermayer. Wiesbaden: Springer Fachmedien Wiesbaden, pp. 189–212.

Decker, F. (2004). *Der neue Rechtspopulismus*. Wiesbaden: VS Verlag für Sozialwissenschaften.

Decker, F. (2007). "Parlamentarische Demokratie versus Volksgesetzgebung. Der Streit um ein neues Wahlrecht in Hamburg." *Zeitschrift für Parlamentsfragen* 38 (1), pp. 116–128.

Dennison, J. and M. Goodwin (2015). "Immigration, Issue Ownership and the Rise of UKIP." *Parliamentary Affairs* 68 (1), pp. 168–187.

Dewan, T. and A. Spriling (2011). "Strategic Opposition and Government Cohesion in Westminster Democracies." *American Political Science Review* 105 (2), pp. 337–358.

Dillmann, D. A., J. D. Smith, and L. M. Christian (2009). *Internet, Mail and Mixed-Mode Surveys: The Tailored Design Method*. Hoboken: John Wiley and Sons.

Downs, A. (1957). *An economic theory of democracy*. Boston: Addison-Wesley.

Dubrow, J. K. (2011). "The importance of party ideology: Explaining parliamentarian support for political party gender quotas in Eastern Europe." *Party Politics* 17 (5), pp. 561–580.

Eberl, O. and D. Salomon (2013). "Postdemokratie und soziale Demokratie." *Politische Vierteljahresschrift (Sonderheft)* 43 (3), pp. 415–425.

Erikson, R. S. and K. L. Tedin (2003). *American Public Opinion*. New York: Pearson.

Evans, G., A. Heath, and M. Lalljee (1996). "Measuring Left-Right and Libertarian-Authoritarian Values in the British Electorate." *The British Journal of Sociology* 47 (1), pp. 93–112.

Faas, T. and H. Schoen (2006). "The importance of being first: Effects of candidates' list positions in the 2003 Bavarian state election." *Electoral Studies* 25 (1), pp. 91–102.

Falter, J. and H. Schoen (2014). *Handbuch Wahlforschung*. Wiesbaden: SpringerVS.

Farrell, D. M. (2011). *Electoral Systems: A Comparative Introduction*. Basingstoke: Palgrave Macmillan.

Feldman, S. and C. Johnston (2014). "Understanding the determinants of political ideology: Implications of structural complexity." *Political Psychology* 35 (2), pp. 337–358.

Forschungsgruppe Wahlen (2013). *Bundestagswahl. Eine Analyse der Wahl vom 22. September 2013*. Mannheim: Berichte der Forschungsgruppe Wahlen Nr. 154.

Fraenkel, E. (2011). "Die repräsentative und die plebiszitäre Komponente im demokratischen Verfassungsstaat." In: *Deutschland und die westlichen Demokratien*. Ed. by E. Fraenkel. Frankfurt: Nomos, pp. 165–208.

Franzmann, S. and A. Kaiser (2006). "Locating Political Parties in Policy Space A Reanalysis of Party Manifesto Data." *Party Politics* 12 (2), pp. 163–188.

Franzmann, S. T. (2014). "Die Wahlprogrammatik der AfD in vergleichender Perspektive." *Mitteilungen des Instituts für Deutsches und Internationales Parteienrecht und Parteienforschung* 20, pp. 115–124.

Freeden, M. (1996). *Ideologies and political theory: A conceptual approach*. Oxford.

Freeden, M. (2003). *Ideology: A Very Short Introduction*. Oxford: Oxford University Press.

Freire, A. and K. Kivistik (2013). "Western and non-Western meanings of the Left-Rights divide across four continents." *Journal of Political Ideologies* 18 (2), pp. 171–199.

Fuchs, D. and H. D. Klingemann (1990). "The left-right schema." In: *Continuities in Political Action*. Ed. by M. K. Jennings and J. W. Van Deth. Berlin/New York: de Gruyter.

Geys, B. and B. Heyndels (2003). "Ballot layout effects in the 1995 elections of the Brussels' government." *Public Choice* 116 (1/2), pp. 147–164.

Godbout, J.-F. and B. Høyland (2011a). "Coalition voting and minority governments in Canada." *Commonwealth & Comparative Politics* 49 (4), pp. 457–485.

Godbout, J.-F. and B. Høyland (2011b). "Legislative voting in the Canadian Parliament." *Canadian Journal of Political Science* 44 (2), pp. 367–388.

Gorecki, M. A. and P. Kukolowicz (2014). "Gender quotas, candidate background and the election of women: A paradox of gender quotas in open-list proportional representation systems." *Electoral Studies* 36 (1), pp. 65–80.

Gorecki, M. A. and M. Marsh (2012). "Not just 'friends and neighbours': Canvassing, geographic proximity and voter choice." *European Journal of Political Research* 51 (5), pp. 563–582.

Grimmer, J. and G. King (2011). "General purpose computer assisted clustering and conceptualization." *Proceedings of the National Academy of Sciences* 108 (7), pp. 2643–2650.

Grimmer, J. and B. M. Stewart (2013). "Text as Data: The Promise and Pitfalls of Automatic Content Analysis Methods for Political Texts." *Political Analysis* 21 (3), pp. 267–297.

Grundgesetz (2014). *Grundgesetz für die Bundesrepublik Deutschland (Stand: 23.12.2014)*.

Gujarati, D. N. (2004). *Basic Econometrics*. Boston: McGraw-Hill.

Gwiazda, A. (2008). "The parliamentary election in Poland, October 2007." *Electoral Studies* 27 (4), pp. 760–764.

Gwiazda, A. (2015). "Women's representation and gender quotas: the case of the Polish parliament." *Democratization* 22 (4), pp. 679–697.

Heath, A., G. Evans, and J. Martin (1994). "The Measurement of Core Beliefs and Values: The Development of Balanced Socialist Laissez Faire and Libertarian Authoritarian Scales." *British Journal of Political Science* 24 (1), pp. 115–132.

Hilbe, J. M. (2011). *Negative Binomial Regression*. Cambridge: Cambridge University Press.

Hix, S. and A. Noury (2016). "Government-Opposition or Left-Right? The Institutional Determinants of Voting in Legislatures." *Political Science Research and Methods* 4 (2), pp. 249–273.

Hix, S., A. Noury, and G. Roland (2006). "Dimensions of politics in the European Parliament." *American Journal of Political Science* 50 (2), pp. 494–520.

Hix, S., A. G. Noury, and G. Roland (2007). *Democratic politics in the European Parliament*. Cambridge: Cambridge University Press.

Hloušek, V. and L. Kopeček (2008). "Cleavages in the Contemporary Czech and Slovak Politics. Between Persistance and Change." *East European Politics and Societies* 22 (3), pp. 518–552.

Hloušek, V. and L. Kopeček (2014). "Caretaker Governments in Czech Politics: What to Do about a Government Crisis." *Europe-Asia Studies* 66 (8), pp. 1323–1349.

Horst, P. (2011). "Das neue Hamburger Wahlrecht auf dem Prüfstand: kontraproduktiv, aber schwer reformierbar." *Zeitschrift für Parlamentsfragen* 42 (4), pp. 707–724.

Hotelling, H. (1929). "Stability in Competition." *The Economic Journal* 39 (153), pp. 41–57.

Hug, S. (2010). "Selection effects in roll call votes." *British Journal of Political Science* 40 (1), pp. 225–235.

Hug, S. (2013). "Parliamentary Voting." In: *Party Governance and Party Democracy*. Ed. by W. C. Müller. New York: Springer, pp. 137–157.

Immerzeel, T., M. Lubbers, and H. Coffe (2015). "Competing with the radical right: Distances between the European radical right and other parties on typical radical right issues." *Party Politics* doi: 10.1177 / 1354068814567975.

Ingelhart, R. and H. D. Klingemann (1976). "Party identification, ideological preference and the left-right dimension among Western mass publics." In: *Party identification and beyond: representations of voting and party competition*. Ed. by I. Budge, I. Crewe, and D. J. Farlie. London, pp. 243–273.

Inglehart, R. and D. Sidjanski (1976). "The Left, the Right, the Establishment and the Swiss Electorate." In: *Party identifiation and beyond*. Ed. by I. Budge, I. Crewe, and D. Farliue. London: Wiley, pp. 225–242.

Jacoby, W. G. (2000). "Loess: a nonparametric, graphical tool for depicting relationships between variables." *Electoral Studies* 19 (4), pp. 577–613.

Jakobeit, C., P. Hiller, N. Thomsen, M. Jankowski, M. Pritsch, and D. Jäckel (2011). *Evaluation des neuen Hamburger Wahlrechts bei der Bürgerschaftswahl 2011. Ergebnisse einer Wähler und Nichtwählerbefragung*. Universität Hamburg.

Jankowski, M., S. H. Schneider, and M. Tepe (2016a). "Ideological alternative? Analyzing Alternative für Deutschland candidates' ideal points via black box scaling." *Party Politics*.

Jankowski, M. (2016). "Voting for locals: Voters' information processing strategies in open-list PR systems." *Electoral Studies* 43, pp. 72 –84.

Jankowski, M. and K. Marcinkiewicz (2016a). "Are populist parties fostering women's political representation in Poland? A comment on Kostadinova and Mikulska." *Party Politics* doi: 10.1177 / 1354068816650995.

Jankowski, M. and K. Marcinkiewicz (2016b). "Varieties of Legislative Voting Patterns: The Impact of Majority, Minority and Caretaker Governments." *Working Paper*.

Jankowski, M., S. H. Schneider, and M. Tepe (2016b). "The struggle over ideology: Analyzing left-right definitions of parliamentary candidates using structural topic models." *Working Paper*.

Jankowski, M., C. Jakobeit, P. Hiller, and N. Thomsen (2013). "Mehr Wahl, mehr Qual? Zum Zusammenhang von Wahlbeteiligung und neuem Wahlrecht in Hamburg." *Zeitschrift für Parlamentsfragen* 44 (2), pp. 265–275.

Jasiewicz, K. (2008). "The New Populism in Poland: The Usual Suspects?" *Problems of Post-Communism* 55 (3), pp. 7–25.

Jeffery, C. and D. Hough (2001). "The Electoral Cycle and Multi-Level Voting in Germany." *German Politics* 10 (2), pp. 73–98.

Jennings, M. K. (1992). "Ideological thinking among mass publics and political elites." *Public Opinion Quarterly* 56 (4), pp. 419–441.

Jörke, D. (2005). "Auf dem Weg zur Postdemokratie." *Leviathan* 33 (4), pp. 482–491.

Jost, J., M. F. Federico, and J. L. Napier (2009). "Political ideology: its structure, functions, and elective affinities." *Annual Review of Psychology* 60, pp. 307–337.

Jou, W. (2009). "The 2008 Hamburg Bürgerschaftswahl: Birth of a New Coalition Formula." *German Politics* 18 (1), pp. 96–102.

Kahnemann, D., P. Slovic, and A. Tversky (1982). *Judgment Under Uncertainty: Heuristics and Biases*. New York: Cambridge University Press.
Kalandrakis, T. (2015). "A theory of minority and majority governments." *Political Science Research and Methods* 3 (2), pp. 309–328.
Kam, C. J. (2009). *Party Discipline and Parliamentary Politics*. Cambridge: Cambridge University Press.
Kam, C. J. (2014). "Party Discipline." In: ed. by Strom..., p. 399.
Kam, C. D. (2007). "Implicit Attitudes, Explicit Choices: When Subliminal Priming Predicts Candidate Preference." *Political Behavior* 29 (3), pp. 343–367.
Kam, C. D. and R. J. Franzese (2007). *Modeling and Interpreting Interactive Hypotheses in Regression Analysis*. Ann Arbor: University of Michigan Press.
Karapin, R. (2002). "Antiminority Riots in Unified Germany: Cultural Conflicts and Mischanneled Political Participation." *Comparative Politics* 34 (2), pp. 147–167.
Karvonen, L. (2004). "Preferential Voting: Incidence and Effects." *International Political Science Review* 25 (2), pp. 203–226.
Kelley, J. and I. McAllister (1984). "Ballot Paper Cues and the Vote in Australia and Britain: Alphabetic Voting, Sex, and Title." *The Public Opinion Quarterly* 48 (2), pp. 452–466.
Kiessling, A. (2007). "Christlich Soziale Union in Bayern e. V. (CSU)." In: *Handbuch der deutschen Parteien*. Ed. by F. Decker and V. Neu. Wiesbaden: VS Verlag fr Sozialwissenschaften, pp. 223–235.
Kim, N., J. Krosnick, and D. Casasanto (2014). "Moderators of Candidate Name-Order Effects in Elections: An Experiment." *Political Psychology* 36 (5), pp. 525–542.
Kitschelt, H. (1988). "Left-libertarian parties: explaining innovation in competitive party systems." *World Politics* 40 (2), 194—234.
Kitschelt, H. (1994). *The Transformation of European Social Democracy*. Cambridge: Cambridge University Press.
Klingemann, H.-D. (1979). "Measuring ideological conceptualization." In: *Political action*. Ed. by S. H. Barnes and M. Kaase. Beverly Hills: Sage Publications, pp. 215–254.
Klingemann, H.-D., A. Volkens, M. D. McDonald, and J. Bara (2006). *Mapping policy preferences II: Estimates for parties, electors, and governments in Eastern Europe, European Union, and OECD 1990–2003*. Oxford: Oxford University Press.
Knutsen, O. (1995). "Value orientations, political conflicts and left-right identification: a comparative study." *European Journal of Political Research* 28 (1), pp. 63–93.
Kopecky, P. and C. Mudde (1999). "The 1998 parliamentary and senate elections in the Czech Republic." *Electoral Studies* 18 (3), pp. 415–424.

Kostadinova, T. and A. Mikulska (2015). "The puzzling success of populist parties in promoting women's political representation." *Party Politics* doi: 10.1177 / 1354068816650995.

Kriesi, H. and T. S. Pappas (2015). *European Populism in the Shadow of the Great Recession*. Colchester: ECPR Press.

Kroh, M. (2007). "Measuring left-right political orientation: the choice of response format." *Public Opinion Quarterly* 71 (2), pp. 204–220.

Laponce, J. A. (1981). *Left and right: the topography of political perceptions*. Toronto: University of Toronto Press.

Lau, R. R., D. J. Andersen, and D. P. Redlawsk (2008). "An Exploration of Correct Voting in Recent U.S. Presidential Elections." *American Journal of Political Science* 52 (2), pp. 395–411.

Lau, R. R. and D. P. Redlawsk (1997). "Voting Correctly." *American Political Science Review* 91 (3), pp. 585–598.

Lau, R. R. and D. P. Redlawsk (2001). "Advantages and Disadvantages of Cognitive Heuristics in Political Decision Making." *American Journal of Political Science* 45 (4), pp. 951–971.

Lau, R. R. and D. P. Redlawsk (2006). *How Voters Decide*. Cambridge: Cambridge University Press.

Laver, M., K. Benoit, and J. Garry (2003). "Extracting Policy Positions from Political Texts Using Words as Data." *American Political Science Review* 97 (2), pp. 311–331.

Laver, M. and N. Schofield (1992). *Multiparty Government. The Politics of Coalition in Europe.* Michigan: Michigan University Press.

Leininger, A. (2016). "(Can't get no) satisfaction through Direct Democracy?" *Working Paper*.

Lewis-Beck, M. and T. W. Rice (1983). "Localism in Presidential Elections: The Home State Advantage." *American Journal of Political Science* 27 (3), pp. 548–556.

Lijphart, A. and R. L. Pintor (1988). "Alphabetic bias in partisan elections: Patterns of voting for the Spanish Senate, 1982 and 1986." *Electoral Studies* 7 (3), pp. 225–231.

Linhart, E. (2014). "Räumliche Modelle der Politik: Einführung und Überblick." In: *Jahrbuch für Handlungs- und Entscheidungstheorie*. Ed. by E. Linhart, B. Kittel, and A. Bächtiger. Wiesbaden: SpringerVS, pp. 3–44.

Lo, J., S.-O. Proksch, and T. Gschwend (2014). "A Common Left-Right Scale for Voters and Parties in Europe." *Political Analysis* 22 (2), pp. 205–223.

Louwerse, T., S. Otjes, D. M. Willumsen, and P. Öhberg (2016). "Reaching across the aisle: Explaining government–opposition voting in parliament." *Party Politics* doi: 10.1177 / 1354068815626000.

Lucas, C., R. A. Nielsen, M. E. Roberts, B. M. Stewart, A. Storer, and D. Tingley (2015). "Computer-Assisted Text Analysis for Comparative Politics." *Political Analysis* 23 (2), pp. 254–277.

Lupia, A. (1994). "Shortcuts Versus Encyclopedias: Information and Voting Behavior in California Insurance Reform Elections." *American Political Science Review* 88 (1), p. 63.

Lupia, A. and M. D. McCubbins (1998). *The Democratic Dilemma. Can Citizens Learn What They Need to Know?* Cambridge: Cambridge University Press.

Lutz, G. (2010). "First Come, Frist Served: Teh Effect of Ballot Position on Electoral Success in Open ballot PR Elections." *Representation* 46 (2), pp. 167–181.

Lyons, P. and T. Lacina (2009). "An examination of legislative roll-call voting in the Czech Republic using spatial models." *Sociologický časopis/Czech Sociological Review* 45 (6), pp. 1155–1190.

Mair, P. (2007). "Left-Right Orientations." In: *Oxford Handbook of Political Behavior*. Ed. by R. J. Dalton and H. D. Klingemann. Oxford: Oxford University Press, pp. 206–222.

Marcinkiewicz, K. (2014). "Electoral contexts that assist voter coordination: Ballot position effects in Poland." *Electoral Studies* 33 (1), pp. 322–334.

Marcinkiewicz, K. and M. Jankowski (2014). "When There's No Easy Way Out: Electoral Law Reform and Ballot Position Effects in the 2011 Hamburg State Elections." *German Politics* 23 (1-2), pp. 103–117.

Marcinkiewicz, K. and M. Stegmaier (2015). "Ballot Position Effects under Compulsory and Optional Preferential-List PR Electoral Systems." *Political Behavior* 37 (2), pp. 465–486.

Martin, S., T. Saalfeld, and K. W. Strøm, eds. (2014). *The Oxford Handbook of Legislative Studies*. Oxford: Oxford University Press.

Massicotte, L. (2004). "To create or to copy? Electoral systems in the German Länder." *German Politics* 12 (1), pp. 1–22.

Mayhew, D. R. (1974). *Congress: The Electoral Connection*. New Haven: Yale University Press.

McElroy, G. and M. Marsh (2010). "Candidate Gender and Voter Choice: Analysis from a Multimember Preferential Voting System." *Political Research Quarterly* 63 (4), pp. 822–833.

Meer, T. Van der, P. Scheepers, and J. W. Van Deth (2009). "The Politicized Participant: Ideology and Political Action in Twenty Democracies." *Comparative Political Studies* 42 (11), pp. 1426–1457.

Miller, J. M. and J. A. Krosnick (1998). "The Impact of Candidate Name Order on Election Outcomes." *Public Opinion Quarterly* 62 (3), pp. 291–330.

Miller, J. M., J. A. Krosnick, and M. Tichy (2004). "An Unrecognized Need for Ballot Reform: Effects of Candidate Name Order." In: *Rethinking the vote: The politics and prospects of American election reform*. Ed. by A. N. Crigler, M. R. Just, and E. J. McCaffery. New York: Oxford University Press, pp. 51–74.

Mitchell, P. and B. Nyblade (2008). "Government formation and cabinet type in parliamentary democracies." In: *Cabinets and Coalition Bargaining: the Democractic Life Cycle in Western Europe.* Ed. by K. Strøm, W. Müller, and T. Bergman. Oxford: Oxford University Press, pp. 201–236.

Morlock, M., T. Poguntke, and J. Walther (2012). *Politik an den Parteien vorbei. Freie Wähler und kommunale Wählergemeinschaften als Alternative*. Baden-Baden: Nomos.

Mudde, C. (2007). *Populist Radical Right Parties in Europe*. Cambridge: Cambridge University Press.

Mudde, C. (2013). "Three decades of populist radical right parties in Western Europe: So what?" *European Journal of Political Research* 52 (1), pp. 1–19.

Müller-Rommel, F., K. Fettelschoss, and P. Harfst (2004). "Party government in Central Eastern European democracies: A data collection (1990–2003)." *European Journal of Political Research* 43 (6), pp. 869–894.

Munzert, S., C. Rubba, P. Meißner, and D. Nyhuis (2015). *Automated data collection with R: A practical guide to web scraping and text mining*. Sussex: John Wiley & Sons.

Nestler, C. (2014). "Einzelbewerber bei den Bundestagswahlen 1949 bis 2013 – zahlreich aber chancenlos." *Zeitschrift für Parlamentsfragen* 45 (4), pp. 796–811.

Neundorf, A. (2009). "Growing up on different sides of the wall – a quasi-experimental test: applying the left-right dimension to the German mass public." *German Politics* 18 (2), pp. 201–225.

Niedermayer, O., ed. (2015). *Die Parteien nach der Bundestagswahl 2013*. Wiesbaden: Springer VS.

Norris, P. (2005). *Radical right: Voters and parties in the electoral market*. Cambridge: Cambridge University Press.

Norris, P. and J. Lovenduski (1995). *Political recruitment: Gender, race and class in the British parliament*. Cambridge: Cambridge University Press.

Noury, A. and E. Mielcova (2005). "Electoral Performance and Voting Behavior in the Czech Republic." *Institute of Governmental Studies, University of California, Berkeley, Working Paper*.

Olsen, J. (2012). "The Spring 2011 Landtag Elections: Regional Specificities or National Electoral Dynamics?" *German Politics* 21 (1), pp. 116–128.

Ordeshook, P. C. (1976). "The spatial theory of elections: A review and a critique." In: *Party identification and beyond: Representations of voting and party competition*. Ed. by I. Budge, I. Crewe, and D. Farlie. London and New York: Wiley, pp. 285–313.

Paolino, P. (2001). "Maximum Likelihood Estimation of Models with Beta-Distributed Dependent Variables." *Political Analysis* 9 (4), pp. 325–346.

Papke, L. and J. Wooldridge (1996). "Econometric Methods for Fractional Response Variables with an Application to 401 (K) Plan Participation Rates." *Journal of Applied Econometrics* 11 (6), pp. 619–632.

Parteiengesetz (2015). *Gesetz über die politischen Parteien (Stand: 22.12.2015)*.

Pieper, M., S. Haussner, and M. Kaeding (2015). "Die Vermessung des Euroskeptizismus der Alternative für Deutschland (AfD) im Frühjahr 2014." In: *Die Europawahl 2014*. Ed. by M. Kaeding and N. Switek. Wiesbaden: SpringerVS, pp. 149–160.

Plecitá-Vlachová, K. and M. Stegmaier (2003). "The chamber of deputies election, Czech Republic 2002." *Electoral Studies* 22 (4), pp. 772–778.

Poguntke, T. (2014). "Towards a new party system: The vanishing hold of the catch-all parties in Germany." *Party Politics* 20 (6), pp. 950–963.

Poole, K. T. (1998). "Recovering a Basic Space From a Set of Issue Scales." *American Journal of Political Science* 42 (3), pp. 954–993.

Poole, K. T. (2000). "Nonparametric unfolding of binary choice data." *Political Analysis* 8 (3), pp. 211–237.

Poole, K. T. (2005). *Spatial Models of Parliamentary Voting*. Cambridge: Cambridge University Press.

Poole, K. T. and H. Rosenthal (1997). *Congress: A Political-Economic History of Roll Call Voting*. New York: Oxford University Press.

Poole, K. T., J. B. Lewis, J. Lo, and R. Carroll (2011). "Scaling roll-call votes with w-nominate in R." *Journal of Statistical Software* 42 (14), pp. 1–21.

Poole, K. T., J. Lewis, H. Rosenthal, J. Lo, and R. Carroll (2016). "Recovering a Basic Space from Issue Scales in R." *Journal of Statistical Software* 69 (7).

Popkin, S. L. (1991). *The reasoning voter: Communication and persuasion in presidential campaigns*. Chicago: University of Chicago Press.

Popkin, S. L. (1993). "Information Shortcuts and the Reasoning Voter." In: *Information, participation, and choice: An economic theory of democracy in perspective*. Ed. by B. Grofman. Ann Arbor: University of Michigan Press, pp. 17–35.

Put, G.-J. and B. Maddens (2015). "The Effect of Municipality Size and Local Office on the Electoral Success of Belgian/Flemish Election Candidates: A Multilevel Analysis." *Government and Opposition* 50 (4), pp. 607–628.

Rattinger, H., S. Roßteutscher, R. Schmitt-Beck, B. Weßels, and C. Wolf (2014). *Candidate Campaign Survey 2013, Survey and Electoral Structural Data (GLES)*.

Riker, W. and P. C. Ordeshook (1968). "A Theory of the Calculus of Voting." *American Political Science Review* 62 (1), pp. 25–42.

Roberts, M., B. Stewart, and E. Airoldi (2016). "A model of text for experimentation in the social sciences." *Journal of the American Statistical Association* forthcoming.

Roberts, M. E., B. M. Stewart, D. Tingley, C. Lucas, J. Leder-Luis, K. Gadarian, B. Albertson, and D. G. Rand (2014). "Structural Topic Models for Open-Ended Survey Responses." *American Journal of Political Science* 58 (4), pp. 1064–1082.

Rosenthal, H. and E. Voeten (2004). "Analyzing roll calls with perfect spatial voting: France 1946–1958." *American Journal of Political Science* 48 (3), pp. 620–632.

Saiegh, S. M. (2015). "Using Joint Scaling Methods to Study Ideology and Representation: Evidence from Latin America." *Political Analysis* 23 (3), pp. 363–384.

Sani, G. and G. Sartori (1983). "Polarization, fragmentation and competition in western democracies." In: *Western European Party Systems*. Ed. by H. Daalder and P. Mair. London: Sage, 307—340.

Sartori, G. (2005). *Parties and party systems: a framework for analysis*. reprinted from Cambridge University Press 1976. Colchester.

Schäfer, A. and H. Schoen (2013). "Mehr Demokratie, aber nur für wenige? Der Zielkonflikt zwischen mehr Beteiligung und politischer Gleichheit." *Leviathan* 41 (1), pp. 94–120.

Schaffner, B. F., M. Streb, and G. Wright (2001). "Teams without Uniforms: The Nonpartisan Ballot in State and Local Elections." *Political Research Quarterly* 54 (1), pp. 1–22.

Schmitt, A. (2014). "Die Rolle von Wahlen in der Demokratie." In: *Handbuch Wahlforschung*. Ed. by J. Falter and H. Schoen. Wiesbaden: SpringerVS, pp. 3–35.

Schmitt-Beck, R. (2014). "Euro-Kritik, Wirtschaftspessimismus und Einwanderungsskepsis: Hintergründe des Beinah-Wahlerfolges der Alternative für Deutschland (AfD) bei der Bundestagswahl 2013." *Zeitschrift für Parlamentsfragen* 45 (1), pp. 94–112.

Schneider, S. and M. Tepe (2011). "Dr. Right and Dr. Wrong: Zum Einfluss des Doktortitels auf den Wahlerfolg von Direktkandidaten bei der Bundestagswahl 2009." *Politische Vierteljahresschrift* 52 (2), pp. 248–285.

Schneider, S. H. and M. Tepe (2015). "Bundestagskandidaten und ihre Einstellung zur Wirtschafts- und Finanzkrise." In: *Wirtschaft, Krise und Wahlverhalten*. Ed. by H. Giebler and A. Wagner. Baden-Baden: Nomos, pp. 267–300.

Schwarzmantel, J. (2008). *Ideology and Politics*. London: Sage.

Shabad, G. and K. M. Slomczynski (2004). "Inter-party mobility among parliamentary candidates in post-communist East Central Europe." *Party Politics* 10 (2), pp. 151–176.

Shugart, M. S. (2001). "Electoral "efficiency" and the move to mixed-member systems." *Electoral Studies* 20 (2), pp. 173–193.

Shugart, M. S. (2013). "Why Ballot Structure Matters." *Perspectives on Politics* 11 (3), pp. 818–820.

Shugart, M. S., M. E. Valdini, and K. Suominen (2005). "Looking for Locals: Voter Information Demands and Personal Vote-Earning At-

tributes of Legislators under Proportional Representation." *American Journal of Political Science* 49 (2), pp. 437–449.

Sieberer, U. (2006). "Party unity in parliamentary democracies: A comparative analysis." *The Journal of Legislative Studies* 12 (2), pp. 150–178.

Sieberer, U. (2010). "Behavioral consequences of mixed electoral systems: Deviating voting behavior of district and list MPs in the German Bundestag." *Electoral Studies* 29 (3), pp. 484–496.

Slapin, J. B. and S.-O. Proksch (2008). "A Scaling Model for Estimating Time-Series Party Positions from Texts." *American Journal of Political Science* 52 (3), pp. 705–722.

Sniderman, P. M., R. A. Brody, and P. E. Tetlock (1991). *Reasoning and Choice: Explorations in Political Psychology*. New York: Cambridge University Press.

Spirling, A. and I. McLean (2007). "UK OC OK? Interpreting optimal classification scores for the UK House of Commons." *Political Analysis* 15 (1), pp. 85–96.

Stegmaier, M. and L. Linek (2014). "The parliamentary election in the Czech Republic, October 2013." *Electoral Studies* 35, pp. 385–388.

Stegmaier, M., K. Marcinkiewicz, and M. Jankowski (2016). "The Effects of Electoral Rules on Parliamentary Behavior: A Comparative Analysis of Poland and the Czech Republic." *East European Politics and Societies* doi: 10.1177 / 0888325416670240.

Stegmaier, M. and K. Vlachová (2011). "The Parliamentary Election in the Czech Republic, May 2010." *Electoral Studies* 30 (1), pp. 238–241.

Strøm, K. (1984). "Minority Governments in Parliamentary Democracies The Rationality of Nonwinning Cabinet Solutions." *Comparative Political Studies* 17 (2), pp. 199–227.

Strøm, K. (1990). *Minority government and majority rule*. Cambridge: Cambridge University Press.

Taagepera, R. (2011). "Adding Meaning to Regression." *European Political Science* 10 (1), pp. 73–85.

Tavits, M. (2010). "Effect of Local Ties On Electoral Success and Parliamentary Behaviour: The Case of Estonia." *Party Politics* 16 (2), pp. 215–235.

Tavits, M. (2012). "Organizing for Success: Party Organizational Strength and Electoral Performance in Postcommunist Europe." *The Journal of Politics* 74 (1), pp. 83–97.

Trüdinger, E. M. and U. Bollow (2011). "Andere Zeiten, andere Inhalte. Bedeutungsgehalt und Bedeutungswandel der politischen Richtungsbegriffe Links und Rechts im innerdeutschen Vergleich." *Zeitschrift für Parlamentsfragen* 42 (2), pp. 398–418.

Tsebelis, G. (1995). "Decision making in political systems: Veto players in presidentialism, parliamentarism, multicameralism and multipartyism." *British Journal of Political Science* 25 (3), pp. 289–325.

Tworzecki, H. (2012). "The Polish parliamentary elections of October 2011." *Electoral Studies* 31 (3), pp. 617–620.

Voeten, E. (2000). "Clashes in the Assembly." *International Organization* 54 (02), pp. 185–215.

von Aleman, U. and D. Nohlen (2010). "Repräsentation." In: *Lexikon der Politikwissenschaft: Theorien, Methoden, Begriffe, N–Z*. Ed. by D. Nohlen and R.-O. Schultze. München: Beck, pp. 919–921.

Wagner, A., M. Lewandowsky, and H. Giebler (2015). "Alles neu macht der Mai? Die Alternative für Deutschland (AfD) und die Europawahl 2014." In: *Die Europawahl 2014*. Ed. by M. Kaeding and N. Switek. Wiesbaden: Springer Fachmedien, pp. 137–148.

Warwick, P. V. (2002). "Toward a common dimensionality in West European policy spaces." *Party Politics* 8 (1), pp. 101–122.

Weisberg, H. (2005). *The Total Survey Error Approach. A Guide to the New Science of Survey Research*. Chicago: University of Chicago Press.

Weßels, B. (2007). "Political Representation and Democracy." In: *The Oxford Handbook of Political Behavior*. Ed. by R. J. Dalton and H.-D. Klingemann. Oxford: Oxford University Press, pp. 833–849.

Zechmeister, E. (2006). "What's left and who's right? A Q-method study of individual and contextual influences on the meaning of ideological labels." *Political Behavior* 28 (2), pp. 151–173.

Zittel, T. and T. Gschwend (2008). "Individualised Constituency Campaigns in Mixed-Member Electoral Systems: Candidates in the 2005 German Elections." *West European Politics* 31 (5), pp. 978–1003.

Zuell, C. and E. Scholz (2015). "Who is Willing to Answer Open-ended Questions on the Meaning of Left and Right?" *Bulletin of Sociological Methodology* 127 (1), pp. 26–42.

ERKLÄRUNG

Hiermit erkläre ich, dass ich die beigefügte Dissertation selbstständig verfasst und keine anderen als die angegebenen Hilfsmittel genutzt habe. Alle wörtlich oder inhaltlich übernommenen Stellen habe ich als solche gekennzeichnet. Die Leitlinien guter wissenschaftlicher Praxis an der Carl von Ossietzky Universität Oldenburg wurden befolgt.

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Oldenburg, 23. Januar 2017

Michael Jankowski

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