

Title.

Do immigrant-origin candidates attract immigrant-origin voters in party-centred electoral systems? Evidence from Germany

Abstract.

A burgeoning literature on minority representation asks whether immigrant-origin voters are more likely to vote for candidates of immigrant-origin (CIOs) than for native candidates, thus giving parties incentives to nominate CIOs. At present, however, evidence of such a link comes exclusively from candidate-centred electoral systems. The present study intends to narrow this gap by examining the influence of CIOs on the voting behaviour of immigrant-origin citizens in Germany, a more party-centred electoral environment. An empirical analysis of opinion survey and candidate data from the 2013 Bundestag election suggests that the electoral link between voters and candidates of immigrant-origin is considerable. This paper is thus the first one to show that CIOs are a significant factor for the electoral mobilisation of immigrant-origin citizens in a party-centred electoral system.

Keywords.

Voting behaviour, Immigrant-origin candidates, Immigrant-origin voters, Electoral systems, Party-centred electoral systems, Germany

Introduction

In the past few decades, large-scale immigration has diversified the voter market for political parties in Western democracies. In response to this development, a burgeoning body of literature shows that Western parties have increased their attention towards growing immigrant-origin electorates, not just through programmatic offers and ethnically targeted campaigning, but also by promoting candidates of immigrant-origin (CIOs) for elected office (Alba and Foner, 2015; Bird *et al*, 2011; Bloemraad and Schönwälder, 2013; Fonseca, 2011; Kittilson and Tate, 2005; Laurence and Maxwell, 2012; Wüst, 2016). An important assumption underlying this literature is that citizens of immigrant-origin are more likely to vote for CIOs than for native candidates, such that parties have incentives to nominate CIOs as a tool to attract the immigrant vote.

At present, however, evidence of a link between immigrant-origin voters and candidates seems to be exclusively provided by studies conducted in electoral systems operating either in single-member districts, such as the UK or Canada (SMD) (Barreto, 2007; Fisher *et al*, 2015; Landa *et al*, 1995; Zingher and Farrer, 2016), or in systems using open-list proportional representation (PR), such as local elections in Belgium or Norway (Bergh and Bjorklund, 2011; Teney *et al*, 2010). By contrast, less is known about this link in more party-centred electoral systems, for instance in the Dutch or Israeli closed-list PR or the German mixed-member proportional (MMP) systems. That may be, because incentives for candidate-based voting are strong in the former but weak in the latter type of electoral systems as the personal voting literature famously posits (e.g. Carey and Shugart, 1995; Shugart *et al*, 2005). Therefore, CIOs may be less likely to mobilise immigrant-origin voters in party-centred systems.

This paper argues that an electoral link between CIOs and immigrant voters exists in party-centred electoral contexts nonetheless. The argumentation highlights candidates' involvement in local politics as a mechanism that raises immigrant-origin voters' awareness of CIOs' presence and thereby increases the appeal of CIOs' parties in party-centred electoral systems. Empirically, the present study examines how the party vote choices of immigrant-origin voters vary with the local presence of CIOs in a "heavily party-oriented system" (Moser and Scheiner, 2005): Germany's MMP system. A series of alternative-specific conditional logit models are applied utilising a combined dataset of self-collected candidate data and survey data from the 2013 German Longitudinal Election Studies (GLES) (Rattinger *et al*, 2014). The main finding from this analysis suggests that the local presence of CIOs influences the PR votes of immigrant-origin citizens considerably. Therefore, this paper contributes to the literature by showing that the electoral mobilisation of immigrant voters through means of nominating CIOs is not contradictory to party-centred electoral environments. The common assumption that CIOs can help parties to increase their vote returns from the immigrant-origin electorate is thus substantiated for electoral systems that provide weak incentives for personal voting.

The electoral link between candidates and voters of immigrant-origin in party-centred electoral systems

According to social identity theory, behavioural homogeneity within social groups is shaped by the degree of societies' stratification: the more the social mobility of individual group members depends on that of their group, the more homogeneously group members will behave socially and politically (Tajfel and Turner, 1986, p. 10). Given that Western countries of

immigration are characterised by strong social and economic inequalities separating most immigrants and their descendants from the native majority population (Alba and Foner, 2015; Bird *et al*, 2011; Bloemraad and Schönwälder, 2013; Strijbis, 2014; Zingher and Farrer, 2016), it is plausible to assume that immigrant-origin residents constitute a meaningful reference group for homogeneous group behaviour in light of social identity theory.

This view is also supported by previous research on immigrants' electoral behaviour. Social identity concepts have greatly helped solve the puzzle of immigrant-origin voters' strong and consistent support for parties of the political left (Bergh and Bjorklund, 2011; Dancygier and Saunders, 2006; Messina, 2007; Sanders *et al*, 2014; Strijbis, 2014; Teney *et al*, 2010; Wüst, 2004)¹. This line of research suggests that neither immigrant-origin voters' location in ideological space nor their class belonging can fully account for the left party bias. Rather, immigrants' identification with group interests and their perception of a "linked fate" (Dawson, 1994) with other group members seems to be complementary with the perceived credibility of left-wing parties on improving the living conditions of immigrants and fighting discrimination in general, thus leading to an overwhelming support for these parties among disadvantaged immigrant groups (Dancygier and Saunders, 2006; Messina, 2007; Sanders *et al*, 2014; Strijbis, 2014).

Such group-based considerations may also be the driving force behind an electoral link between voters and candidates of immigrant-origin. Minority candidates provide readily available voting cues to voters, that is, they are generally perceived to be more compassionate and trustworthy than other candidates in representing the political interests of disadvantaged groups (e.g. Banducci *et al*, 2004; Landa *et al*, 1995; McDermott, 1998). According to McConnaughy and co-authors, such candidate cues interact heavily with "linked fate" perceptions (McConnaughy *et al*, 2010). Similar to the impact of "linked fate" perceptions on immigrants' left party support, immigrant-origin voters may also be more likely to support a

CIO than a native candidate in order to improve the political representation of the interests of disadvantaged groups more generally. In line with this, existing research on immigrants' group voting behaviour in Western democracies confirms by and large that immigrant voters prefer CIOs over native candidates even if the CIO has a *different* immigrant background to the voter (Bergh and Bjorklund, 2011; McConnaughy *et al*, 2010; Teney *et al*, 2010; Zingher and Farrer, 2016).

If group-based considerations underlie immigrants' electoral support for left-wing parties and CIOs alike, the question arises of what happens if the voting cues encoded in the profiles of parties and candidates conflict. Do immigrant voters support right-wing parties if these nominate CIOs? Does it make a difference if left-wing parties nominate CIOs rather than native candidates? With reference to the classical literature on voting behaviour (Campbell *et al*, 1954; Lazarsfeld *et al*, 1944) we may think of the former scenario as a *cross-pressure* between the voting cues encoded in right-wing party ideology and CIOs. Attitudinal cross-pressures are well-known to make voters ambivalent regarding the evaluation of their voting alternatives, such that the influences of opposing voting cues are likely to cancel each other out (Lavine, 2001; Mutz, 2002). CIOs running for right-wing parties may thus attract fewer votes from the immigrant-origin electorate than CIOs running for left-wing parties. However, in settings of multiparty competition between several parties on the political left, the presence of a CIO on the left might re-enforce the voting cue of left-wing party ideology. Thus, CIO effects should mainly work on the political left, influencing which one of several left-wing parties is supported. This line of argumentation is also in line with previous scholarship, suggesting a left-wing bias of CIO effects on immigrants' vote choices (Bergh and Bjorklund, 2011; Teney *et al*, 2010; Zingher and Farrer, 2016).

However, evidence of CIO effects on immigrant-origin citizens' voting behaviour is entirely based on research conducted in candidate-centred electoral systems; therefore it is based on evidence in most-likely electoral system contexts. In candidate-centred systems, like SMD or open-list PR, voters are said to have strong incentives to make candidate-based voting decisions, while this incentive should be widely missing in party-centred systems, like closed-list PR or MMP (Carey and Shugart, 1995). Here, by contrast, voters have strong incentives to make party-based rather than candidate-based voting decisions, because they can only support or defect a list of candidates as a whole, which provides little leeway to influence the electoral fate of individual candidates (Shugart *et al*, 2005). Since the notion of an electoral link between immigrant voters and CIO is candidate-based by definition, party-centred electoral systems provide for a least-likely electoral context to find support for this hypothesis (see Gerring and Seawright, 2007).

This paper argues, by contrast, that other mechanisms than electoral systems' incentives for personal voting can provide a link between immigrants' voting behaviour and CIOs. The proposed argument relies on the notion that voters' *awareness* of individual candidates is an important driver of candidate-based voting behaviour (Gschwend and Zittel, 2015, p. 341). On one hand, this kind of candidate awareness may be heightened if ballots provide voters with a choice between candidates rather than between parties (Shugart *et al*, 2005). However, on the other hand, voters' awareness of individual candidates may also follow from candidates' *involvement in local politics*. Candidates' involvement in local politics is common in party-centred electoral systems, as informal rules of legislative recruitment typically require that political aspirants gather political experience in local government and/or party offices before they can become parliamentary candidates. Even as elected parliamentarians, they often hold local mandates simultaneously, thus ensuring their rootedness and visibility in the local community. Real world examples of these empirical patterns in party-centred

electoral environments extend to, for example, Germany (Wessels, 1997), Israel (Hazan, 1999), Italy (Russo, 2011), the Netherlands (Leijenaar and Niemöller, 1997) and Portugal (Fernandes *et al*, 2017).

As locally connected politicians, CIOs provide their parties with a means to conduct localised modes of campaigning, for example for the purpose of advertising the party label to certain immigrant voter groups. Indeed, scholarship shows that campaigning strategies in party-centred electoral systems have become more professional and sophisticated in targeting specific “focus groups” over the past few decades (Strömbäck, 2009). Given that immigrant-origin residents tend to be geographically concentrated, it makes sense for parties seeking the immigrant vote to direct their campaign resources to areas of high ethnic density (Sobolewska *et al*, 2013). According to Latner and McGann, list candidates can be viewed as geographically distributable campaigning resources (Latner and McGann, 2005, p. 713).

Given CIOs’ local political involvement and parties’ incentives to utilise this, it is plausible to assume that many immigrant voters become *aware* of individual CIOs due to CIOs’ local political presence and activities. These may include candidates’ visibility as holders of local government and party office (Tavits, 2010), their status as locally known incumbent parliamentarians (Hainmueller and Kern, 2008; Manow, 2015, Chapter 4), and/or their local campaigning activities before an election (Gschwend and Zittel, 2015) such as canvassing ethnic community groups, knocking on doors of immigrant-origin voters, meeting them face-to-face in the pedestrian area or by giving interviews to local media. As a consequence of immigrant voters’ *awareness* of CIOs, “linked fate” perceptions of improved group representation may be enabled, ultimately increasing the likelihood of supporting the (left-wing) party that nominated the local CIO. In this chain of causation, candidate awareness plays thus the role of a mediator between CIOs’ local political involvement and immigrant voters’ party vote choices. In sum, as candidates are often locally known figures even in

party-centred electoral systems, the electoral link between immigrant voters and CIOs nominated by left-wing parties should work in party-centred electoral systems, as well.

Based on these considerations, this paper's hypotheses read:

H1: Immigrant-origin voters, who are aware of a local CIO, are more likely to vote for the party of the CIO than for other parties.

H2: The link between local CIOs and immigrant voters' party vote choices, as stated in H1, is contingent on CIOs' nomination by left-wing parties.

Germany as a least-likely context for candidate-based voting

For the purpose of testing these hypotheses, the present paper provides a case study of immigrant voters' party vote choices in the 2013 German Bundestag election. Over the past two decades, immigrant politics in Germany has been on the rise (e.g Schönwälder, 2012; Wüst, 2016). In 2013, approximately 20% of the residents and 9% of all eligible voters in Germany were of immigrant-origin, that is, born with foreign nationality or born to at least one parent with foreign nationality at birth (Bundeswahlleiter, 2013a). Consisting mainly of former "guest workers" and their descendants from south-eastern European countries or Turkey and of "ethnic Germans" mainly from Central Eastern European and/or countries of the former Soviet Union, nowadays Germany accounts for 20% of the entire EU's immigrant population (OECD and EU, 2015). Given higher fertility rates (Schönwälder, 2012) and more recent large-scale influxes of refugees (commonly touted the "refugee crisis") these numbers can be expected to grow even further in the future. Previous research in Germany shows that parties have responded to these developments by increasing their efforts to appeal to this new

and growing segment of the electorate, indicated by an increasing salience of immigrant-related content in party manifestos and by increasing numbers of CIOs at all political levels (Fonseca, 2011; Schönwälder, 2012; Wüst, 2016).

However, an as of yet under-researched topic in German-specific research is whether immigrant-origin voters reward parties for their candidate offers. In Germany's mixed-member proportional (MMP) system used for the federal parliament (the Bundestag), voters elect local representatives in 299 SMDs and simultaneously cast a vote for a closed party list in 16 multi-member districts which coincide geographically with the 16 federal states (PR tier). Given that PR votes determine parties' seat shares in parliament due to a compensatory link between the two electoral tiers producing highly proportional election outcomes (Saalfeld, 2005), parties should mainly be interested in garnering *PR votes* from the immigrant electorate. Consequently, the system is often considered as belonging to the family of PR systems (e.g. Plasser and Plasser, 2002; Ruedin, 2013). Moser and Scheiner, for example, have described the German electoral system as "heavily party-oriented" with regard to citizens' voting behaviour due the strong linkage between its tiers and a long-consolidated party system (Moser and Scheiner, 2005).

For these reasons, the present paper considers Germany's PR tier as a party-centred electoral context, and thus, from the perspective of the personal voting literature, as a least-likely case to find an electoral link between immigrant voters and CIOs. As CIOs' local presence is expected to influence the party choices of voters of immigrant-origin, the analytical focus is on the effect of individual CIOs rather than on the CIO composition of party lists. In this respect, this paper's focus on the PR tier of Germany's MMP system has also a practical advantage: Germany facilitates the task of linking voters and CIOs in party lists unambiguously to the same geographical area, because most candidates run as dual candidates, that is, in a party list *and* in a local

constituency simultaneously (Manow, 2015). Simply put, the common practice of dual candidacy facilitates the study of whether immigrant-origin voters' electoral behaviour *in the PR tier* vary systematically with the *local* presence of CIOs, thus resembling previous research designs in more personalised electoral systems.

Data and variables

Given that this paper is interested in the interaction between candidates' immigrant backgrounds and immigrant voters' PR votes, the empirical analysis relies on voter-level and candidate-level data. Voter-level data is taken from the 2013 German Longitudinal Election Studies (GLES), which provides standard pre- and post-election survey data (Rattinger *et al*, 2014). Candidate-level data was assembled with the help of Parlamentwatch e.V., a registered German charity which presents on its website (www.abgeordnetenwatch.de) detailed background information on all 1493 constituency candidates, who ran for one of the main five party competitors (CDU/CSU, SPD, The Left, Greens, FDP) in the 2013 election. Available information includes candidates' names, party affiliations and constituencies.

A number of data preparation steps are conducted in order to combine the two data sources into one dataset for the empirical analysis. First, voters of immigrant-origin are identified in the GLES dataset² by utilising survey questions relating to respondents' citizenship at birth and their parents' place of birth. In order to avoid being left with very few cases of immigrant voters, the merged file of the GLES pre- and post-election study is used. Since voters' *PR votes* is the dependent variable of interest, the GLES dataset is reduced to all respondents who indicated either intention (pre-election study) or recollection (post-election

study) of casting a PR vote for one of the main five party competitors (CDU/CSU, SPD, The Left, Greens, FDP). Non-voters are excluded, while native respondents are kept in the dataset as a control group to which the voting behaviour of immigrant voters is compared to. The final voter-level dataset contains 279 observations of voters of immigrant-origin and 2403 observations of native voters, overall 2682 observations.

The candidate dataset provides the independent variable of main interest, that is, whether or not a local candidate is of immigrant-origin (*CIO*). Candidates are coded as being of immigrant-origin if they were born either (a) abroad with foreign nationality at birth (first generation) or in Germany (b) with foreign nationality at birth or (c) with German nationality and at least one parent of foreign nationality at birth (second generation). Information on candidates' migratory backgrounds is mainly taken from 'Mediendienst Integration' (Mediendienst Integration, 2013), a media service of the German academic 'Rat für Migration' (council on migration). 'Mediendienst Integration' conducted a survey with all press offices of the regional party associations before the 2013 election, asking for the names and origins of parties' CIOs, which makes this data source "the best approximation on immigrant-origin candidates in the 2013 Bundestag election available" (Wüst, 2014, p. 2). With support of a student assistant, candidates' immigrant backgrounds were again validated against publicly available sources, that is, mainly internet sources -(e.g. personal and party websites), and interviews in newspapers. In addition to that, we screened the official list of candidates of the Federal Electoral Commissioner (Bundeswahlleiter, 2013b) for potentially non-German names and birth places outside Germany and repeated the cross-validation for these cases. Overall, 96 out of 1493 constituency candidates could be identified as being of immigrant-origin. Besides the variable *CIO*, we also coded, for the purpose of conducting robustness checks (see online supplementary material), the variable *visible CIO* to distinguish CIOs whose immigrant-origin

is easily rather than hard to recognise based on their first name and surname or physical appearance. Where the coding between the author and the student assistant differed, we discussed each case on an individual basis to reach a coding agreement.

In order to merge the two datasets into one, the voter-level data is transformed into a long format, such that each voter appears in five rows for each of the five party vote choices in the dataset. This format allows the merging of the candidate-level data with voters' party vote alternatives utilising identifier variables for the constituencies of voters and candidates.³

Voters' awareness of local candidates is the second independent variable of main interest. The measurement of this variable flows from a GLES survey item⁴ relating to respondents' recollection of local candidates' names and parties. Based on this information, *candidate awareness* takes a value of one for each party vote option in the merged dataset if a respondent was able to tell by recollection the name of a party's local candidate and was also able to assign this candidate to the correct party, and zero otherwise (Gschwend and Zittel, 2015, p. 342).

A set of control variables is intended to control for alternative explanations of voting behaviour. Importantly, the analysis accounts for the socio-psychological, or "Michigan" model of voting (Campbell *et al*, 1954, 1960). This theoretical model envisions voting behaviour as affected by three attitudinal concepts. Voters' *party identification* is conceptualised to be a long term psychological party membership developed over the course of an individual's political life, while *top candidate* and *issue orientations* are conceptualised as short term adjustable influences (Campbell *et al*, 1954). As such, the three concepts are considered to influence voting behaviour as interplaying mediators of voters' lifelong political socialisation at the end of a "funnel of causality" (Campbell *et al*, 1960, pp. 24–37). *Party identification* captures whether a voter identifies with a certain party as well as the strength of this identification. For each party vote option, values of 0 denote that a voter does not identify

with a certain party, and values between 1 and 5 indicate a weak to very strong identification with that party. Including this variable will also help to account for the possibility that immigrants' support for a CIO may simply be an unobserved effect of immigrant voters' support for left parties which are also more likely to nominate CIOs (Bergh and Bjorklund, 2011). *Rile self-placement* provides summary measures of voters' issue orientations as a self-placement on a scale from 1 (most left) to 11 (most right). To account for the influence of attitudes towards top candidates for chancellor, the variable *chancellor preference* captures whether a voter prefers the CDU/CSU (Angela Merkel) or SPD top candidate (Peer Steinbrück) or neither.

A second set of control variables is immigrant-specific. First, the two largest immigrant groups in the dataset, that is voters descending from Poland or a country of the former USSR, with remaining immigrant respondents contained in a reference category, are controlled for. Including this variable is intended to account for a possible tendency of immigrants descending from post-Soviet countries of emigration to support the CDU/CSU (Wüst, 2004). Second, the inclusion of the variable *first generation*, capturing whether a voter has immigrated herself (=1) or whether s/he was born to at least one immigrant parent (=0), has the purpose of controlling for the possibility that second-generation immigrants may be better integrated into German society as compared to first-generation immigrants, wherefore immigrant group-based considerations may be less significant in the case of second-generation immigrants (e.g. Strijbis, 2014).

Moreover, two control variables are included to accommodate for the two-tier structure of the mixed-member system. First, respondents' vote choice in the SMD tier (*SMD vote*) is included to account for the possibility that a voting decision in the PR tier is a spill-over effect of a nominal vote for a candidate in the SMD tier rather than a sincere vote for the party (Ferrara *et al*, 2005, Chapter 5; Hainmueller and Kern, 2008; Manow, 2015, Chapter 4). Second, *system knowledge* controls for whether or not respondents understand the consequences of the two vote choices, which might not always be the case in mixed-member systems where voting decisions may often be the result of a lack of system knowledge rather than a sincere vote (Jesse, 1988). The variable takes a value of one if the respondent can tell that the PR vote determines a party's overall seat share, and zero otherwise. Moreover, as a last control variable, *post-election survey* accounts for whether a respondent was part of the GLES 2013 post-election study (=1), or of the pre-election study (=0) to account for the possibility that interview situations before and after elections may bias survey responses.

(Table 1 here)

In order to be transparent about a possible left-wing bias of immigrant voters' PR votes, their party identification and CIOs, Table 1 presents how these party-related variables are distributed in the dataset. As can be seen in the first row, PR votes of immigrant respondents distribute rather evenly between right (CDU/CSU and FDP) and left-leaning parties (SPD, Greens, The Left), resembling similar patterns in the population of German-origin voters (second row). Neither the partisanship of immigrant respondents is biased towards left-leaning parties as shown in the third row, resembling again patterns in the population of German-origin voters, as shown in the fourth row. However, immigrant and native voters are both more likely to see CIOs of left-wing than of right-wing parties (fifth and sixth row). This picture coincides with the distribution of constituency CIOs across all parties in the candidate

dataset (seventh row). Therefore, it is rather a real world fact that most immigrant candidates run for parties of the political left than a bias in the used data.

Statistical model

The merged data file matches voters and candidates at the level of constituencies. Since this paper seeks to understand to what extent PR votes are “conditional on the characteristics of the choices”, here candidates’ immigrant backgrounds, the alternative-specific conditional logit model lends itself as a workhorse for the empirical analysis (Alvarez and Nagler, 1998, p. 56). Conditional logit is a mixture of two regression models designed to explain an unordered categorical dependent variable: a multinomial logit model explains the influence of factors varying at the level of *choosers* (case-specific) and a conditional choice logit model explains how factors varying at the level of *choices* (alternative-specific) influence the probability of choosing a particular outcome (Alvarez and Nagler, 1998; Cameron and Trivedi, 2009, pp. 489–496; Long and Freese, 2014, pp. 460–61). A common running example is the analysis of people’s choice of travel options (e.g. bus, train or car), which is likely to depend not only on the affluence of the individual (case-specific), but also on the cost and duration of the travel options (alternative-specific) (e.g. Long and Freese, 2014, p. 461). Similarly, conditional logit models are commonly used when party or candidate characteristics (alternative-specific) as well as voter characteristics (case-specific) are considered in the explanation of individual vote choices (e.g. Alvarez and Nagler, 1998; Ferrara *et al*, 2005, Chapter 5; Fisher *et al*, 2015; Gschwend and Zittel, 2015; Heath *et al*, 2015).

In order to fit this statistical model, the data needs to be rearranged in a way that each respondent appears five times (in five rows) in the dataset, that is, one time for each party choice (Cameron and Trivedi, 2009, pp. 489–490). Alternative-specific variables can vary across these five alternatives, while case-specific variables take values that are the same across the five alternatives (ibid., p. 490). Given this data structure, the multinomial logit component of the model explains the k possible alternatives through an estimation of $k-1$ regression equations, each including the same number of *case-specific* covariates, thus producing for every covariate as many as $k-1$ coefficients overall (Alvarez and Nagler, 1998, p. 66). The conditional choice logit component, by contrast, estimates only one coefficient per *alternative-specific* covariate, indicating the impact of the covariate's values across the alternatives on the probability that a given alternative is chosen (ibid., p. 66).

Moreover, the alternative-specific coefficients allow the estimation of predicted probabilities and marginal effects to evaluate variation in the influence of these variables on the likelihood that a particular

alternative is chosen (Cameron and Trivedi, 2009, pp. 494–495; Long and Freese, 2014, pp. 458–460). In order to minimise the number of estimated coefficients, independent variables that can be logically assigned to different party vote choices are considered alternative-specific even if these could be considered to be voter-specific (e.g. party identification) (for a similar approach see Gschwend and Zittel, 2015). To the contrary, only variables that cannot be logically assigned to the vote choices (e.g. Rile self-placement) are considered case-specific in the succeeding conditional logit models.

Results

The empirical strategy is to fit conditional logit models separately for immigrant and native voters in order to examine whether associations found in the sample of immigrants are actually either immigrant-specific or resemble patterns in the population of native voters.

Table 2 shows the estimated coefficients of four conditional logit models, with robust standard errors, clustered at the level of local constituencies, in parentheses.

(Table 2 here)

The local presence of CIOs, as models 1 and 2 demonstrate, affects the party vote choices of immigrant voters, but not those of voters without immigrant-origin. Even after controlling for alternative explanations of voting behaviour, immigrants' likelihood of supporting a party is estimated to be positively and significantly affected by the presence of a local CIO from that party, while natives' party support remains unaffected. Models 3 and 4 extend the estimation by the interaction of CIO and candidate awareness. As hypothesised in H1, the model estimations suggest that the impact of CIO on immigrant-origin voters' support for a party is mediated by voters' awareness of the candidates. When the interaction is added in the model

for immigrants (model 3), the coefficient of the CIO variable turns out to be statistically insignificant, while the interaction term turns out to be positive and highly significant. In the control group of natives, by comparison, neither CIO nor its interaction with candidate awareness shows significant effects.

(Figure 1 here)

Although inspecting alternative-specific regression coefficients indicates *whether* covariates of interest affect PR votes, they do not give an indication of *how* the effect may vary depending on CIOs' party affiliation. Therefore, in order to assess how the effect varies by party affiliation, I estimate the marginal effects of voters' awareness of local CIOs on their specific party support, based on models 3 and 4. Figure 1 visualises these estimations showing how the likelihood of supporting any of the five parties changes when voters are confronted with a local CIO from a specific party. Given that the relationship is contingent on their awareness of the CIO, the variable candidate awareness is held at one in the estimations. In line with H2, Figure 1 provides evidence in favour of the contention that immigrants' PR vote is only affected by their awareness of a local CIO, if the CIO is nominated by a left-wing party. The marginal effect plots on the left show that the effect of voters' awareness of local CIOs varies strongly by party in the group of immigrant voters. The marginal effects for the two right-wing parties (FDP and CDU/CSU; shown in the top and bottom plots) suggest that the nomination of a CIO by one of these parties increases the likelihood of candidate-aware immigrant voters supporting the party by 0.09 and 0.11 respectively. However, these effects are not estimated to be statistically significant. The picture changes strongly for the three parties on the left. If immigrant voters are aware of a local CIO from the Greens, the Left or the SPD, the likelihood of them supporting these parties increases by 0.63, 0.67 and 0.41 respectively. Moreover, the plots suggest a trade-off between the three left-wing parties, that is, immigrant-origin citizens' voting decisions are

affected by the presence of a left-wing CIO in that the party of the CIO becomes more likely to be voted for to the extent that the other two left-wing parties become less likely to be voted for. This suggests that the local presence of CIOs mainly affects immigrant voters who tend to vote left of the centre, determining which particular left-wing party will be supported eventually. In the control group of native voters, by contrast, the picture could not be more different. Irrespective of party label, native voters' PR votes are not found to be affected at all by the presence of a CIO when they are aware of the candidate.

Results are robust to a variety of different model specifications, which can be inspected in the section on robustness checks in the online supplementary material.

Discussion and Conclusions

This paper engages with the research puzzle of the electoral link between voters and candidates of immigrant-origin under party-centred electoral rules. From the perspective of the personal voting literature (Carey and Shugart, 1995; Shugart *et al.*, 2005), it appears questionable whether parties can utilise CIOs to attract votes from the immigrant-origin electorate in such systems. Conversely, this paper argues that an electoral link exists between immigrant voters and CIO despite party-centred electoral rules. According to the proposed argument, parties have incentives to distribute list CIOs geographically as a campaigning resource in order to tap into immigrant-origin voter markets. Because CIOs are typically locally connected, for example as local councillors or party officials, they constitute a local voting cue to immigrant-origin voters. Provided that these candidates are perceived to better represent disadvantaged groups' interests than native candidates, immigrant-origin voters should be more likely to support the parties of local CIOs than other parties.

In order to test this argument, this paper studies immigrant-origin citizens' voting behaviour in the 2013 German Bundestag election based on a merged dataset of survey and candidate data. The main findings suggest that in Germany the electoral connection between voters and candidates of immigrant-origin is considerable: immigrant voters' PR votes are strongly affected by the local presence of CIOs. The proposed mechanism underlying this link, that is, immigrant voters' *awareness* of local CIOs affect their PR votes due to "linked fate" perceptions of improved group representation, is further corroborated by the statistical evidence. Finally, the analysis also suggests that this kind of party competition for immigrant-origin voters is mainly a game between parties of the left, in which the win of one left-wing party means the loss of another one. Crucially, all these relationships were found to be immigrant-specific, that is, the reported effects could not be replicated in the control group of native voters.

It is important to note that the present study has limitations, though. One is that the analysis lacks the statistical power to isolate the relationship between voters and candidates of the same descent from that between voters and candidates belonging to different immigrant groups. However, in line with Zingher and Farrer it can be argued that this lack of precision should decrease the odds of verifying the electoral link between voters and candidates of immigrant-origin, thus rendering the analysis an even tougher test of the argument (Zingher and Farrer, 2016)⁵. The finding of a significant relationship therefore provides strong evidence in favour of the proposed argument and suggests that "linked fate" perceptions associated with the presence of a CIO may surpass ethnic and/or national boundaries with regard to voting behaviour.

Doubts may also be expressed as to whether these results are driven by the case selection of Germany's MMP system. Indeed, the simultaneous existence of an electoral tier operating in geographical constituencies and the common dual candidacy practice constitute a

unique feature of MMP as compared to “pure” closed-list PR systems. However, it is not too implausible that this paper’s finding generalises to the latter type of system as well, because the two systems show striking similarities with regard to key aspects of the proposed argument. First, both systems ensure a high level of proportional representation, due to which they provide similar vote-seeking incentives for parties as each additional vote has the potential to increase a party’s seat shares. Second, locally connected list candidates are not unique to Germany, given the common empirical pattern of list candidates simultaneously holding local government or party offices in a number of closed-list PR systems. Since immigrant-origin citizens tend to cluster geographically, parties in both types of systems should have incentives to exploit their CIOs’ local attachments to create vote returns from the immigrant-origin electorate. Nevertheless, future research is needed to examine the generalisability of the electoral link in other party-centred electoral systems, for example in the Netherlands or Israel, where two of the most proportional closed-list systems are combined with the requirement for candidates to retain local attachments (Hazan, 1999; Leijenaar and Niemöller, 1997).

Despite these limitations, this paper makes a major contribution to previous literature. It extends previous research (Barreto, 2007; Bergh and Bjorklund, 2011; Landa *et al*, 1995; McConnaughy *et al*, 2010; Teney *et al*, 2010; Zingher and Farrer, 2016), by presenting the first case study that supports the hypothesis of mobilisation effects as a consequence of CIOs’ presence in a least-likely party-centred electoral environment. Thereby, it contributes to this literature by raising doubts about the moderating influence of electoral systems. Least-likely case studies are essential for the accumulation of knowledge, because they make it harder to corroborate deductively derived hypotheses and help to rule out rival hypothesis, thus increasing our confidence in the validity of the hypotheses if supported (Gerring and Seawright, 2007). As such, this case study substantiates the frequently made assumption that

parties in party-centred systems of proportional representation have vote-seeking incentives to provide for more descriptive representation of immigrant-origin citizens in their party lists. Moreover, a secondary finding of the presented analysis may also point to a possible advantage of party-centred as compared to candidate-centred electoral systems. The non-finding of an effect of CIOs in the control group of native voters, a finding that reiterates previous research in Germany (Street, 2014), stands in contrast to the repeatedly found electoral penalty for ethnic minority candidates in the UK's first-past-the-post system (e.g. Fisher *et al*, 2015). A possible explanation may be that CIOs face less discrimination in more party-centred electoral systems due to weak personal voting incentives, while at the same time ensuring that locally connected CIOs remain visible to immigrant-origin voters as a result of the proposed argument. At this point, however, this intuition is largely speculative but may be an interesting research question for succeeding research.

Notes

¹ An exceptions to this pattern applies, however, to the immigrants group of so-called “ethnic Germans”, whose troubled history with communist parties has made them overwhelmingly supporters of the Christian Democrats (Wüst, 2004).

² Please see Appendix Table 1 in the supplementary material for a detailed overview and description of the GLES variables used in this article and how they were recoded.

³ Please see Appendix Table 2 in the supplementary material for a detailed description of the specific immigrant backgrounds of voters and candidates, and of immigrant and native voters’ exposure to local CIOs in the final merged dataset.

⁴ The translated question wording (own translation) of this item (v82a-e) is: “Do you know the name of one or several district candidates and can you maybe even tell me for which party these candidates are running in the Election on 22nd September 2013? Please tell me the name and party of the candidates.”

⁵ Assuming that the electoral link between immigrant-origin voters and candidates is stronger if they are of same rather than of different descent, it should be more difficult to establish the link statistically in the latter case. According to hypothesis-testing theory, such a situation would increase the probability of a type II error, that is, failing to reject the null-hypothesis (i.e. no relationship) even if the null-hypothesis is wrong (i.e. relationship exists) (Cameron and Trivedi, 2009, p.407; Zingher and Farrer, 2016, p. 695). As it should become more difficult to establish a relationship as a type II error becomes more likely, our confidence in the validity of the hypothesis is strengthened if the empirical evidence supports the hypothesis

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Table 1: Distribution of party-related variables in the used dataset

		CDU/CSU	FDP	SPD	Green	The Left	no party
Immigrants' PR	N	122	16	66	46	29	-
votes for... ^a	%	43.7	5.7	23.7	16.5	10.4	
Natives' PR votes	N	1,015	101	747	247	293	-
for... ^a	%	42.24	4.2	31.1	10.3	12.2	
Immigrants	N	106	5	64	33	17	54
identifying with... ^a	%	38.0	1.8	22.9	11.8	6.1	19.4
Natives identifying	N	882	47	650	170	219	435
with... ^a	%	36.7	2.0	27.0	7.1	9.1	18.1
Immigrants who see	N	5	10	18	34	31	-
a CIO from ... ^{ab}	%	1.8	3.6	6.5	12.2	11.1	
Natives who see a	N	66	39	162	187	212	-
CIO from ... ^{ab}	%	2.7	1.6	6.7	7.8	8.8	
Total no. of CIO	N	9	9	20	26	32	-
running for... ^c	%	0.6	0.6	1.3	1.7	2.1	

Note: based on the data described in the text; ^a based on the merged data file; ^b voters may see more than one candidate of immigrant-origin; ^c based on the candidate data file, percentages based on all candidate observation

Table 2: Determinants of immigrants' and natives' PR votes

	Model 1: Immigrants' PR votes	Model 2: Natives' PR votes	Model 3: Immigrants' PR votes	Model 4: Natives' PR votes
<i>Alternative-specific determinants of party vote choice:</i>				
CIO	1.58** (0.53)	-0.23 (0.32)	0.36 (0.44)	-0.42 (0.39)
Candidate awareness	1.72** (0.53)	0.86*** (0.15)	1.42* (0.59)	0.84*** (0.14)
CIO # awareness			2.92** (0.91)	0.37 (0.61)
Party identification	0.75*** (0.16)	0.64*** (0.05)	0.77*** (0.17)	0.64*** (0.05)
SMD vote	0.63+ (0.34)	1.39*** (0.12)	0.62 (0.38)	1.39*** (0.12)
<i>Case-specific determinants of SPD vote relative to CDU/CSU vote</i>				
Post-election survey	0.18 (0.74)	0.10 (0.25)	0.16 (0.73)	0.10 (0.25)
System knowledge	0.39 (0.71)	-0.52* (0.26)	0.43 (0.71)	-0.51* (0.26)
Former USSR ^a	-0.62 (0.92)	(dropped)	-0.67 (0.88)	(dropped)
Poland ^a	0.75 (0.85)	(dropped)	0.65 (0.87)	(dropped)
First generation	0.38 (0.84)	(dropped)	0.44 (0.86)	(dropped)
Steinbrück ^b	17.17*** (0.85)	2.98*** (0.44)	17.70*** (0.79)	2.98*** (0.44)
Neither Merkel nor Steinbrück ^b	3.19*** (0.87)	2.03*** (0.49)	3.27*** (0.88)	2.03*** (0.49)
Rile self-placement	-0.44* (0.21)	-0.23** (0.08)	-0.42* (0.20)	-0.23** (0.08)
INTERCEPT	0.36 (1.45)	0.68 (0.50)	0.34 (1.54)	0.68 (0.50)
<i>Case-specific determinants of The Left vote relative to CDU/CSU vote</i>				
Post-election survey	0.38 (0.87)	-0.04 (0.27)	-0.04 (0.94)	-0.04 (0.27)
System knowledge	1.07 (0.81)	-0.74** (0.27)	1.17 (0.84)	-0.73** (0.27)
Former USSR ^a	-1.60+ (0.94)	(dropped)	-1.52+ (0.91)	(dropped)
Poland ^a	1.48+ (0.85)	(dropped)	1.31 (0.84)	(dropped)
First generation	0.20 (0.80)	(dropped)	0.21 (0.80)	(dropped)
Steinbrück ^b	16.17*** (0.93)	2.75*** (0.48)	16.65*** (0.89)	2.75*** (0.48)
Neither Merkel nor Steinbrück ^b	4.61*** (0.93)	2.68*** (0.44)	4.76*** (0.94)	2.69*** (0.44)
Rile self-placement	-0.85** (0.33)	-0.79*** (0.09)	-0.85* (0.36)	-0.79*** (0.09)
INTERCEPT	1.52 (1.77)	3.25*** (0.54)	1.85 (2.04)	3.25*** (0.54)
<i>Case-specific determinants of Green vote</i>				

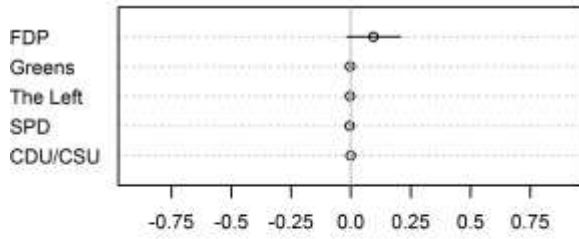
<i>relative to CDU/CSU vote</i>				
Post-election survey	0.15 (0.77)	0.06 (0.31)	0.04 (0.78)	0.06 (0.31)
System knowledge	1.29 (0.80)	-0.19 (0.28)	1.39+ (0.84)	-0.18 (0.28)
Former USSR ^a	-1.42 (0.97)	(dropped)	-1.47 (1.06)	(dropped)
Poland ^a	0.54 (0.94)	(dropped)	0.75 (0.94)	(dropped)
First generation	-0.91 (0.77)	(dropped)	-1.02 (0.82)	(dropped)
Steinbrück ^b	16.95*** (0.78)	2.81*** (0.42)	17.22*** (0.73)	2.81*** (0.42)
Neither Merkel nor Steinbrück ^b	2.91** (0.96)	1.84*** (0.48)	3.50*** (0.94)	1.84*** (0.49)
Rile self-placement	-0.33+ (0.19)	-0.33*** (0.09)	-0.46* (0.22)	-0.33*** (0.09)
INTERCEPT	0.41 (1.32)	1.49* (0.59)	0.81 (1.41)	1.47* (0.60)
<i>Case-specific determinants of FDP vote relative to CDU/CSU vote</i>				
Post-election survey	-0.34 (1.35)	-0.41 (0.36)	-0.41 (1.29)	-0.41 (0.36)
System knowledge	-1.15 (0.84)	-0.93** (0.31)	-1.16 (0.82)	-0.93** (0.31)
Former USSR ^a	-16.15*** (0.69)	(dropped)	-16.73*** (0.66)	(dropped)
Poland ^a	1.76 (1.08)	(dropped)	1.81+ (1.07)	(dropped)
First generation	-0.69 (0.89)	(dropped)	-0.89 (0.90)	(dropped)
Steinbrück ^b	16.94*** (1.48)	1.76** (0.64)	17.49*** (1.38)	1.76** (0.64)
Neither Merkel nor Steinbrück ^b	2.58* (1.23)	-0.64 (0.92)	2.70* (1.20)	-0.63 (0.92)
Rile self-placement	0.35 (0.28)	0.08 (0.10)	0.37 (0.27)	0.08 (0.10)
INTERCEPT	-2.79 (2.05)	-0.32 (0.71)	-2.82 (2.05)	-0.33 (0.72)
N (alternatives)	1235	10930	1235	10930
N (cases)	247	2154	247	2154
Bic	635.31	2501.82	626.06	2510.18

Note: + p<0.10, * p<0.05, ** p<0.01, *** p<0.001; robust standard errors, clustered on constituencies, are shown in parentheses; models estimated on weighted data to compensate for an oversampling of East German regions and to make the data more representative of the socio-structural outlook of the German voting age population (weight variable in the GLES 2013 dataset: w_ipfges_2); ^a reference category is remaining immigrant groups; ^b reference group is Merkel

Figure 1: Marginal effects of CIOs on the likelihood of supporting specific parties

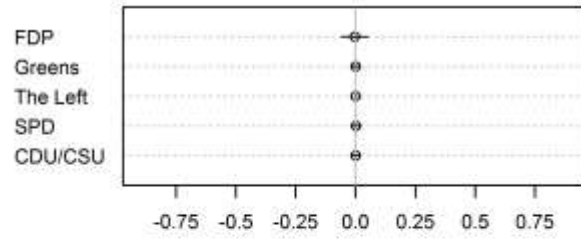
Note: based on models 3 and 4 in Table 1; Effects reported are based on candidate awareness held at one

Voters of immigrant origin

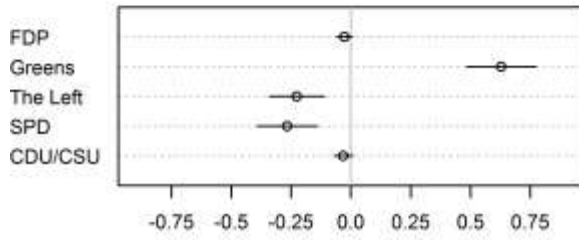


Marginal effects of FDP CIO on Pr(party choice)

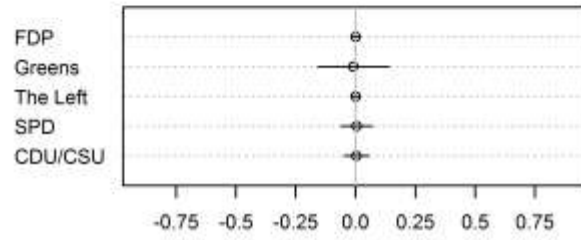
Native voters



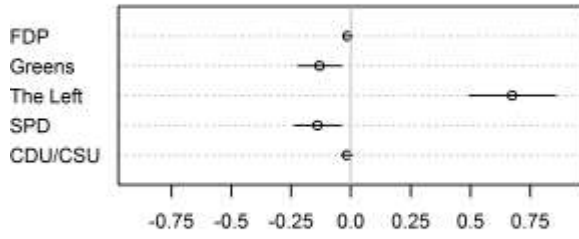
Marginal effects of FDP CIO on Pr(party choice)



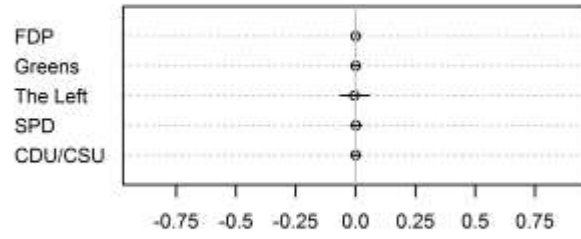
Marginal effects of Green CIO on Pr(party choice)



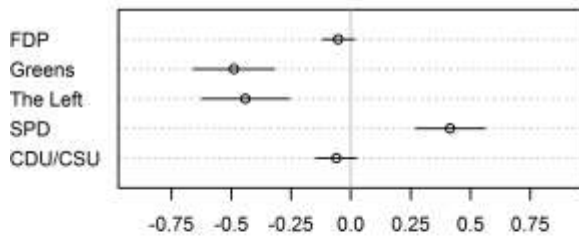
Marginal effects of Green CIO on Pr(party choice)



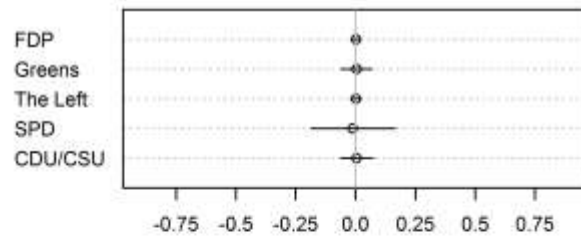
Marginal effects of The Left CIO on Pr(party choice)



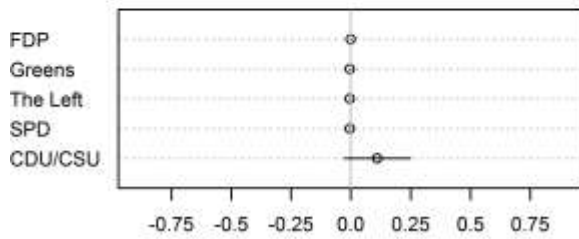
Marginal effects of The Left CIO on Pr(party choice)



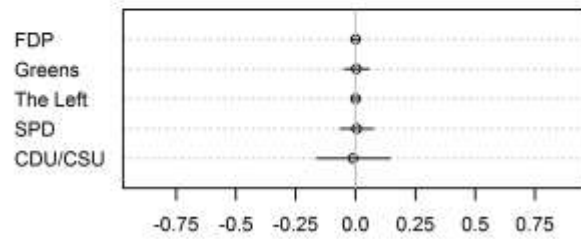
Marginal effects of SPD CIO on Pr(party choice)



Marginal effects of SPD CIO on Pr(party choice)



Marginal effects of CDU/CSU CIO on Pr(party choice)



Marginal effects of CDU/CSU CIO on Pr(party choice)

Supplementary material to paper

“Do immigrant-origin candidates attract immigrant-origin voters in party-centred electoral systems? Evidence from Germany

Appendix Table 1: Variables in the GLES 2013 dataset and recoding

Original variable name(s) in dataset	Questionnaire wording (own translation)	Recoding/ Usage
<p>v11ba (Party vote: pre-election survey) n11ba (Party vote: post-election survey)</p>	<p>Example pre-election study:</p> <p>“In the Bundestag election you can cast two votes. The first vote for a candidate in your electoral district and a second vote for a party. Here is a ballot specimen similarly to the one you will be provided with for the election. How are you going to vote?”</p> <p>(21) CDU/CSU (Christlich Demokratische Union/Christlich-Soziale Union) (22) SPD (Sozialdemokratische Partei Deutschlands) (23) FDP (Freie Demokratische Partei) (24) DIE LINKE (DIE LINKE) (25) GRÜNE (BÜNDNIS 90/DIE GRÜNEN) (26) PIRATEN (Piratenpartei Deutschland) (27) NPD (Nationaldemokratische Partei Deutschlands) (28) AfD (Alternative für Deutschland) (29) other party (-83) invalid vote (-97) not applicable (-98) don't know (-99) no answer</p>	<p><i>PR vote</i> (alternative-specific):</p> <p>(1) Intention/recollection of voting for... (0) No intention/recollection of voting for party...</p> <p>Per vote choice: (1) CDU/CSU (2) SPD (3) The Left (4) Greens (5) FDP</p> <p>remaining observations ignored</p>
<p>vn195 (German citizenship since birth)</p>	<p>„Do you have German citizenship since you were born?”</p> <p>(1) yes (2) no (-98) don't know (-99) no answer</p>	<p>Used to split dataset into an immigrant voters and distinguish different immigrant groups and generation:</p> <p><i>Poland</i> <i>Former USSR</i> <i>First generation</i></p>
<p>vn198 (Country of birth other than Germany)</p>	<p>“Please tell me where you were born.”</p> <p>(1) former German territory</p>	

	<p>(e.g. Silesia, Eastern Prussia) (2) Turkey (3) Italy (4) Poland (5) Former USSR (6) Greece (7) Croatia, Serbia, Bosnia and Herzegovina, former Yugoslavia (8) Austria (9) Slovakia, Czech Republic, Former Czechoslovakia (10) Denmark, Sweden, Norway, Finland (11) Netherlands (12) Belgium (13) France (14) Switzerland (15) USA (16) other country (-97) not applicable (-98) don't know (-99) no answer</p>	
<p>vn203 (Father's country of birth other than Germany) vn204 (Mother's country of birth other than Germany)</p>	<p>Example respondent's mother: "Please tell me where your mother was born." (1) former German territory (e.g. Silesia, Eastern Prussia) (2) Turkey (3) Italy (4) Poland (5) Former USSR (6) Greece (7) Croatia, Serbia, Bosnia and Herzegovina, former Yugoslavia (8) Austria (9) Slovakia, Czech Republic, Former Czechoslovakia (10) Denmark, Sweden, Norway, Finland (11) Netherlands (12) Belgium (13) France (14) Switzerland (15) USA (16) other country (-97) not applicable (-98) don't know (-99) no answer</p>	
v82a-e (Local candidate	"Do you know the name of one	<i>Candidate awareness</i>

<p>knowledge: pre-election survey) n82a-e (Local candidate knowledge: post-election survey)</p>	<p>or several district candidates and can you maybe even tell me for which party these candidates are running in the Election on September 22 2013? Please tell me the name and party of the candidates”</p> <p>Per party: (1) Name and party correct (2) Name correct, party incorrect (3) Name correct, no party mentioned (4) Name incorrect, but party mentioned (5) Neither name nor party</p>	<p>(alternative-specific): (1) Name and party correct (0) otherwise</p> <p>Per vote choice: (1) CDU/CSU (2) SPD (3) The Left (4) Greens (5) FDP</p>
<p>v11aa (Candidate vote: pre-election survey) n11aa (Candidate vote: post-election survey)</p>	<p>Example pre-election study: “In the Bundestag election you can cast two votes. The first vote for a candidate in your electoral district and a second vote for a party. Here is a ballot specimen similarly to the one you will be provided with for the election. How are you going to vote?”</p> <p>(21) CDU/CSU (Christlich Demokratische Union/Christlich-Soziale Union) (22) SPD (Sozialdemokratische Partei Deutschlands) (23) FDP (Freie Demokratische Partei) (24) DIE LINKE (DIE LINKE) (25) GRÜNE (BÜNDNIS 90/DIE GRÜNEN) (26) PIRATEN (Piratenpartei Deutschland) (27) NPD (Nationaldemokratische Partei Deutschlands) (28) AfD (Alternative für Deutschland) (29) other party (-83) invalid vote (-97) not applicable (-98) don't know (-99) no answer</p>	<p><i>SMD vote</i> (alternative-specific): (1) Intention/recollection of voting for candidate from ... (0) No intention/recollection of voting for candidate from...</p> <p>Per vote choice: (1) CDU/CSU (2) SPD (3) The Left (4) Greens (5) FDP</p>
<p>vn119a (Party Identification)</p>	<p>“In Germany many people have a long-term tendency to identify with a certain political party, even if they vote sometimes for</p>	<p><i>Party identification</i> (alternative-specific): (5) very strong identification</p>

	<p>a different party. What about you: Generally speaking, do you identify with a certain party? And if so, which party?"</p> <p>(1) CDU/CSU (2) CDU (3) CSU (4) SPD (5) FDP (7) DIE LINKE (6) GRÜNE (215) PIRATEN (Piratenpartei Deutschland) (206) NPD (322) AfD (Alternative für Deutschland) (801) other party (808) no party (-98) don't know (-99) no answer</p>	<p>with party (4) strong identification with party (3) moderate identification with party (2) weak identification with party (1) very weak identification with party (0) no identification with party</p> <p>Per vote choice: (1) CDU/CSU (2) SPD (3) The Left (4) Greens (5) FDP</p>
vn120 (Strength of Party Identification)	<p>"How strong or weak is your identification with this party?"</p> <p>(1) very strongly (2) rather strongly (3) moderately (4) rather weakly (5) very weakly (-97) not applicable (-98) don't know (-99) no answer</p>	
vn62 (left-right self-placement)	<p>"In politics people often talk about "left" and "right". On a scale from 1 till 11, on which 1 is "left" and 11 is "right", where would you place yourself?"</p> <p>(1) 1 left (2) 2 (3) 3 (4) 4 (5) 5 (6) 6 (7) 7 (8) 8 (9) 9 (10) 10 (11) 11 right (-97) not applicable (-98) don't know (-99) no answer</p>	<i>Rile self-placement</i>
v41 (Chancellor preference: pre-election survey) n41 (Chancellor preference:	<p>Example pre-election study: "Who would you prefer to be</p>	<i>Chancellor preference</i>

<p>post-election survey)</p>	<p>chancellor after the Bundestag election: Angela Merkel or Peer Steinbrück?"</p> <p>(1) Angela Merkel (2) Peer Steinbrück (3) neither/nor (-97) not applicable (-98) don't know (-99) no answer</p>	
<p>vn7 (Political knowledge: Candidate and party vote)</p>	<p>In the Bundestag election you will have two votes, a first and a second vote. Which of these votes determined the seat distribution in the Bundestag?"</p> <p>(1) the first vote (2) the second vote (3) both votes are equally important (-98) don't know (-99) no answer</p>	<p><i>System knowledge</i></p> <p>(1) correct answer (second vote) (0) incorrect answer</p>

Distribution of variables of main interest Voters and candidates of immigrant-origin in the datasets

Appendix Table 2 provides an overview of how voters' and candidates' immigrant backgrounds distribute in the merged data file. Since the assignment of immigrant backgrounds to certain categories is predetermined in the GLES dataset, the candidate data was accommodated to match the GLES categorisation scheme shown in Appendix Table 2. The second column shows the distribution of immigrant voters' origins in the dataset. Citizens of Polish-origin, closely followed by those descending from a country of the former Soviet Union, provide the largest groups (2.4%) in the sample, while Turkish-origin respondents are in the third place with 1.3%. These are also the three largest immigrant groups in the German population. The second column displays the distribution of candidates' immigrant backgrounds seen by immigrant voters on the ballot. Overall, every third immigrant voter (34.1%) in the sample is confronted with a CIO.

Appendix Table 2: Voters' and candidates' immigrant backgrounds in the dataset

	Voters of ... origin (N / % of voters)	Immigrant voters facing at least one candidate of ... origin on the ballot (N / % of immigrant voters)	Native voters facing at least one candidate of ... origin on the ballot (N / % of native voters)
German	2403 / 89.6%	279 / 100%	2403 / 100%
Any immigrant	279 / 10.4%	95 / 34.1%	615 / 25.6%
Turkish	36 / 1.3%	41 / 14.7%	259 / 10.8%
Italian	10 / 0.4%	0	7 / 0.3%
Polish	65 / 2.4%	0	12 / 0.5%
Former USSR	64 / 2.4%	6 / 2.2%	43 / 1.8%
Greek	4 / 0.1%	2 / 0.7%	21 / 0.9%
Former Yugoslavia	13 / 0.5%	3 / 1.1%	26 / 1.1%
Austrian	4 / 0.1%	2 / 0.7%	29 / 1.2%
Czech/ Slovak	31 / 1.2%	9 / 3.2%	21 / 0.9%
Scandinavian	2 / >0.1%	0	0
Belgian/ Dutch	3 / 0.1%	6 / 2.2%	55 / 2.3%
French	2 / >0.1%	2 / 0.7%	10 / 0.4%
US	1 / >0.1%	0	0
Other	44 / 1.6%	33 / 11.8%	233 / 9.7%

In order to be transparent about a possible left-wing bias of immigrant voters' PR vote choices, their party identification and CIOs, Appendix Table 3 presents how these party-related variables are distributed in the dataset. As can be seen in the first row, PR votes of immigrant respondents distribute rather evenly between right (CDU/CSU and FDP) and left-leaning parties (SPD, Greens, The Left), resembling similar patterns in the population of German-origin voters (second row). Neither the partisanship of immigrant respondents is biased towards left-leaning parties as shown in the third row, also resembling patterns in the population of German-origin voters shown in the fourth row. However, immigrant and native voters are both more likely to see CIOs of left-wing than of right-wing parties (fifth and sixth row). This picture coincides with the distribution of constituency CIOs across all parties in the candidate dataset (seventh row). Therefore, it is rather a real world fact that most immigrant candidates run for parties of the political left than a bias in the used data.

Appendix Table 3: Distribution of party-related variables in the used dataset

		CDU/CSU	FDP	SPD	Green	The Left	no party
Immigrants' PR	N	122	16	66	46	29	-
votes for... ^a	%	43.7	5.7	23.7	16.5	10.4	
Natives' PR votes	N	1,015	101	747	247	293	-
for... ^a	%	42.24	4.2	31.1	10.3	12.2	
Immigrants	N	106	5	64	33	17	54
identifying with... ^a	%	38.0	1.8	22.9	11.8	6.1	19.4
Natives identifying	N	882	47	650	170	219	435
with... ^a	%	36.7	2.0	27.0	7.1	9.1	18.1
Immigrants who see	N	5	10	18	34	31	-
a CIO from... ^{ab}	%	1.8	3.6	6.5	12.2	11.1	
Natives who see a	N	66	39	162	187	212	-
CIO from... ^{ab}	%	2.7	1.6	6.7	7.8	8.8	
Total no. of CIO	N	9	9	20	26	32	-
running for... ^c	%	0.6	0.6	1.3	1.7	2.1	

Note: based on the data described in the text; ^a-based on the merged data file; ^b-voters may see more than one candidate of immigrant origin; ^c-based on the candidate data file, percentages based on all candidate observation

Robustness checks

Appendix Table [4-3](#) shows that the results of the main analysis can be replicated when the data is not weighted in the statistical estimation to compensate for an oversampling of East German regions and to make the data more representative of the socio-structural outlook of the German voting age population. Appendix Table [5-4](#) presents additional models with the variable CIO being exchanged for visible CIO. And finally, Appendix Table [6-5](#) shows the results of two alternative-specific *mixed* conditional logit models to check whether the CIO effect suffers from a potential violation of the independence of irrelevant alternatives assumption (IIAA). The IIAA implies that the ratio of the probability of choosing one party to the probability of choosing a second party is unchanged for individual voters if a third viable party enters or drops out of the electoral race (Alvarez & Nagler, 1998, p. 57; Dow & Endersby, 2004, p. 111). Alternative-specific mixed conditional logit relaxes the IIAA and thus provides a robustness check for the standard conditional logit model (for more details see Cameron & Trivedi, 2005, pp. 513–16). A violation of the IIAA is likely in studies of voting behaviour because adding a party that is viable and ideological proximate to another party is likely to change the voting decisions of some respondents. However, such party entries or exits are rarely realistic scenarios according to Dow and Endersby. Following the argumentation of the authors, the importance of the IIAA should not be exaggerated in applied research settings because democratic elections tend to be contested by a fixed and stable pool of parties (Dow and Endersby, 2004, p. 112-113). In any case, the alternative-specific mixed conditional logit models replicate the finding of CIO effects on immigrant voters' party choices.

Appendix Table 43: Robustness alternative-specific conditional logit models (unweighted data)

	Model 1: Immigrants' PR votes	Model 2: Natives' PR votes	Model 3: Immigrants' PR votes	Model 4: Natives' PR votes
<i>Alternative-specific determinants of party vote choice:</i>				
CIO	1.35* (0.54)	-0.07 (0.26)	0.20 (0.43)	-0.41 (0.33)
Candidate awareness	1.52** (0.49)	0.91*** (0.13)	1.22* (0.52)	0.88*** (0.13)
CIO # awareness			2.55* (1.00)	0.65 (0.51)
Party identification	0.70*** (0.15)	0.63*** (0.05)	0.71*** (0.16)	0.63*** (0.05)
SMD vote	0.95** (0.32)	1.54*** (0.11)	0.96** (0.34)	1.54*** (0.11)
<i>Case-specific determinants of SPD vote relative to CDU/CSU vote</i>				
Post-election survey	0.39 (0.66)	0.19 (0.24)	0.39 (0.63)	0.18 (0.24)
System knowledge	0.50 (0.60)	-0.60** (0.22)	0.50 (0.60)	-0.60** (0.22)
Former USSR ^a	-0.94 (0.85)	(dropped)	-0.97 (0.81)	(dropped)
Poland ^a	0.77 (0.75)	(dropped)	0.77 (0.77)	(dropped)
First generation	0.10 (0.76)	(dropped)	0.14 (0.79)	(dropped)
Steinbrück ^b	18.63*** (0.61)	2.88*** (0.42)	15.97*** (0.63)	2.89*** (0.42)
Neither Merkel nor Steinbrück ^b	2.76** (0.85)	1.84*** (0.38)	2.80** (0.88)	1.84*** (0.38)
Rile self-placement	-0.49** (0.19)	-0.19** (0.07)	-0.48* (0.19)	-0.19** (0.07)
INTERCEPT	0.76 (1.23)	0.41 (0.47)	0.77 (1.32)	0.41 (0.47)
<i>Case-specific determinants of The Left vote relative to CDU/CSU vote</i>				
Post-election survey	0.66 (0.73)	0.11 (0.27)	0.40 (0.78)	0.11 (0.27)
System knowledge	1.50* (0.73)	-1.09*** (0.23)	1.66* (0.79)	-1.08*** (0.23)
Former USSR ^a	-1.22 (0.79)	(dropped)	-1.19 (0.79)	(dropped)
Poland ^a	0.81 (0.86)	(dropped)	0.74 (0.87)	(dropped)
First generation	-0.65 (0.72)	(dropped)	-0.68 (0.73)	(dropped)
Steinbrück ^b	17.34*** (0.84)	2.77*** (0.46)	14.63*** (0.88)	2.77*** (0.46)
Neither Merkel nor Steinbrück ^b	3.85*** (0.94)	2.56*** (0.40)	4.13*** (0.98)	2.57*** (0.40)
Rile self-placement	-0.78** (0.29)	-0.66*** (0.09)	-0.82** (0.31)	-0.66*** (0.09)
INTERCEPT	2.09 (1.56)	2.71*** (0.57)	2.38 (1.68)	2.71*** (0.57)
<i>Case-specific determinants of Green</i>				

<i>vote relative to CDU/CSU vote</i>				
Post-election survey	0.22 (0.65)	0.05 (0.28)	0.17 (0.65)	0.04 (0.28)
System knowledge	1.10+ (0.67)	-0.33 (0.25)	1.21+ (0.70)	-0.32 (0.25)
Former USSR ^a	-1.55+ (0.86)	(dropped)	-1.63+ (0.94)	(dropped)
Poland ^a	0.55 (0.82)	(dropped)	0.72 (0.83)	(dropped)
First generation	-1.12 (0.70)	(dropped)	-1.06 (0.73)	(dropped)
Steinbrück ^b	18.54*** (0.55)	2.68*** (0.42)	15.71*** (0.55)	2.69*** (0.42)
Neither Merkel nor Steinbrück ^b	2.83** (0.94)	1.62*** (0.40)	3.29*** (0.94)	1.61*** (0.40)
Rile self-placement	-0.31+ (0.16)	-0.24** (0.09)	-0.43* (0.18)	-0.23** (0.09)
INTERCEPT	0.72 (1.12)	0.86 (0.58)	1.03 (1.18)	0.83 (0.59)
<i>Case-specific determinants of FDP vote relative to CDU/CSU vote</i>				
Post-election survey	-0.23 (1.16)	-0.49 (0.31)	-0.30 (1.12)	-0.49 (0.31)
System knowledge	-1.07 (0.79)	-0.71* (0.30)	-1.06 (0.77)	-0.71* (0.30)
Former USSR ^a	-17.72*** (0.64)	(dropped)	-15.06*** (0.63)	(dropped)
Poland ^a	1.79 (1.11)	(dropped)	1.84 (1.13)	(dropped)
First generation	-0.97 (0.86)	(dropped)	-1.07 (0.86)	(dropped)
Steinbrück ^b	18.33*** (1.15)	1.64** (0.61)	15.65*** (1.06)	1.64** (0.61)
Neither Merkel nor Steinbrück ^b	2.41+ (1.26)	-1.09 (0.84)	2.53* (1.25)	-1.08 (0.84)
Rile self-placement	0.33 (0.22)	0.20* (0.09)	0.32 (0.23)	0.20* (0.09)
INTERCEPT	-2.50 (1.67)	-1.19+ (0.69)	-2.47 (1.73)	-1.21+ (0.69)
N (alternatives)	1235	10930	1235	10930
N (cases)	247	2154	247	2154
Bic	544.27	2464.92	563.39	2471.69

Note: + p<0.10, * p<0.05, ** p<0.01, *** p<0.001; robust standard errors, clustered on constituencies, are shown in parentheses; models estimated on unweighted data; ^a reference category is remaining immigrant groups; ^b reference group is Merkel

Appendix Table 54: Robustness alternative-specific conditional logit models (visible CIO)

	Model 1: Immigrants' PR votes	Model 2: Natives' PR votes	Model 3: Immigrants' PR votes	Model 4: Natives' PR votes
<i>Alternative-specific determinants of party vote choice:</i>				
Visible CIO	1.69** (0.59)	-0.16 (0.29)	0.36 (0.54)	-0.20 (0.33)
Candidate awareness	1.79*** (0.52)	0.86*** (0.15)	1.52** (0.54)	0.86*** (0.14)
Visible CIO # awareness			2.99** (1.00)	0.09 (0.63)
Party identification	0.71*** (0.16)	0.64*** (0.05)	0.71*** (0.17)	0.64*** (0.05)
SMD vote	0.68* (0.33)	1.39*** (0.12)	0.72+ (0.37)	1.39*** (0.12)
<i>Case-specific determinants of SPD vote relative to CDU/CSU vote</i>				
Post-election survey	0.14 (0.69)	0.11 (0.25)	0.17 (0.68)	0.11 (0.25)
System knowledge	0.47 (0.71)	-0.52* (0.26)	0.48 (0.71)	-0.52* (0.26)
Former USSR ^a	-0.62 (0.93)	(dropped)	-0.68 (0.90)	(dropped)
Poland ^a	0.88 (0.83)	(dropped)	0.70 (0.85)	(dropped)
First generation	0.40 (0.82)	(dropped)	0.40 (0.84)	(dropped)
Steinbrück ^b	16.94*** (0.74)	2.98*** (0.44)	16.74*** (0.76)	2.98*** (0.44)
Neither Merkel nor Steinbrück ^b	3.15*** (0.88)	2.03*** (0.49)	3.26*** (0.90)	2.02*** (0.49)
Rile self-placement	-0.46* (0.21)	-0.23** (0.08)	-0.44* (0.21)	-0.23** (0.08)
INTERCEPT	0.39 (1.45)	0.67 (0.50)	0.40 (1.53)	0.67 (0.50)
<i>Case-specific determinants of The Left vote relative to CDU/CSU vote</i>				
Post-election survey	0.32 (0.83)	-0.03 (0.27)	0.04 (0.90)	-0.03 (0.27)
System knowledge	1.18 (0.80)	-0.74** (0.27)	1.23 (0.79)	-0.74** (0.27)
Former USSR ^a	-1.53 (0.93)	(dropped)	-1.67+ (0.92)	(dropped)
Poland ^a	1.40+ (0.84)	(dropped)	1.11 (0.80)	(dropped)
First generation	0.08 (0.76)	(dropped)	0.08 (0.74)	(dropped)
Steinbrück ^b	15.84*** (0.82)	2.75*** (0.48)	15.46*** (0.80)	2.75*** (0.48)
Neither Merkel nor Steinbrück ^b	4.59*** (0.91)	2.68*** (0.44)	4.58*** (0.91)	2.69*** (0.44)
Rile self-placement	-0.83* (0.35)	-0.78*** (0.09)	-0.88* (0.35)	-0.78*** (0.09)
INTERCEPT	1.63 (1.76)	3.23*** (0.54)	2.24 (1.80)	3.23*** (0.54)
<i>Case-specific determinants of Green</i>				

<i>vote relative to CDU/CSU vote</i>				
Post-election survey	0.17 (0.72)	0.06 (0.31)	0.11 (0.75)	0.06 (0.31)
System knowledge	1.38+ (0.79)	-0.17 (0.29)	1.36 (0.83)	-0.17 (0.29)
Former USSR ^a	-1.42 (1.00)	(dropped)	-1.49 (1.14)	(dropped)
Poland ^a	0.60 (0.90)	(dropped)	0.78 (0.92)	(dropped)
First generation	-0.96 (0.75)	(dropped)	-1.08 (0.79)	(dropped)
Steinbrück ^b	16.67*** (0.72)	2.80*** (0.42)	16.17*** (0.73)	2.80*** (0.42)
Neither Merkel nor Steinbrück ^b	2.92** (0.95)	1.84*** (0.49)	3.46*** (0.93)	1.84*** (0.49)
Rile self-placement	-0.35+ (0.19)	-0.33*** (0.09)	-0.48* (0.22)	-0.33*** (0.09)
INTERCEPT	0.51 (1.30)	1.47* (0.60)	0.98 (1.39)	1.47* (0.60)
<i>Case-specific determinants of FDP vote relative to CDU/CSU vote</i>				
Post-election survey	-0.60 (1.21)	-0.40 (0.35)	-0.47 (1.15)	-0.40 (0.35)
System knowledge	-0.56 (0.86)	-0.92** (0.31)	-0.57 (0.84)	-0.92** (0.31)
Former USSR ^a	-16.18*** (0.63)	(dropped)	-15.96*** (0.61)	(dropped)
Poland ^a	1.42 (1.05)	(dropped)	1.38 (1.02)	(dropped)
First generation	-0.81 (0.83)	(dropped)	-0.91 (0.81)	(dropped)
Steinbrück ^b	16.48*** (1.34)	1.76** (0.64)	16.07*** (1.25)	1.76** (0.64)
Neither Merkel nor Steinbrück ^b	2.48* (1.18)	-0.63 (0.93)	2.53* (1.15)	-0.63 (0.93)
Rile self-placement	0.30 (0.25)	0.08 (0.10)	0.29 (0.24)	0.08 (0.10)
INTERCEPT	-2.15 (1.89)	-0.34 (0.72)	-2.04 (1.82)	-0.35 (0.72)
N (alternatives)	1235	10930	1235	10930
N (cases)	247	2154	247	2154
Bic	644.31	2503.58	636.59	2512.85

Note: + $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$; robust standard errors, clustered on constituencies, are shown in parentheses; models estimated on weighted data to compensate for an oversampling of East German regions and to make the data more representative of the socio-structural outlook of the German voting age population (weight variable in the GLES 2013 dataset: *w_ipfges_2*); ^a reference category is remaining immigrant groups; ^b reference group is Merkel

Appendix Table 65: Robustness alternative-specific *mixed* conditional logit models (random effects)

	Model 1: Immigrants' PR votes	Model 2: Natives' PR votes
<i>Alternative-specific determinants of party vote choice:</i>		
Candidate awareness	1.72** (0.53)	0.89*** (0.15)
Party identification	0.75*** (0.16)	0.65*** (0.05)
SMD vote	0.63+ (0.34)	1.43*** (0.12)
CIO	1.58** (0.53)	-0.47 (0.36)
sd(CIO)	0.00 (0.00)	1.32** (0.49)
<i>Case-specific determinants of SPD vote relative to CDU/CSU vote</i>		
Post-election survey	0.18 (0.74)	0.12 (0.26)
System knowledge	0.39 (0.71)	-0.54* (0.26)
Former USSR ^a	-0.62 (0.92)	(dropped)
Poland ^a	0.75 (0.85)	(dropped)
First generation	0.38 (0.84)	(dropped)
Steinbrück ^b	20.50+ (12.29)	3.03*** (0.45)
Neither Merkel nor Steinbrück ^b	3.19*** (0.87)	2.10*** (0.51)
Rile self-placement	-0.44* (0.21)	-0.24** (0.08)
INTERCEPT	0.36 (1.45)	0.66 (0.49)
<i>Case-specific determinants of The Left vote relative to CDU/CSU vote</i>		
Post-election survey	0.38 (0.87)	-0.06 (0.28)
System knowledge	1.07 (0.81)	-0.77** (0.27)
Former USSR ^a	-1.60+ (0.94)	(dropped)
Poland ^a	1.48+ (0.85)	(dropped)
First generation	0.20 (0.80)	(dropped)
Steinbrück ^b	19.50 (11.89)	2.76*** (0.48)
Neither Merkel nor Steinbrück ^b	4.61*** (0.93)	2.70*** (0.45)
Rile self-placement	-0.85** (0.33)	-0.80*** (0.09)
INTERCEPT	1.52 (1.77)	3.37*** (0.55)
<i>Case-specific determinants of Green</i>		

<i>vote relative to CDU/CSU vote</i>		
Post-election survey	0.15 (0.77)	0.08 (0.32)
System knowledge	1.29 (0.80)	-0.22 (0.28)
Former USSR ^a	-1.42 (0.97)	(dropped)
Poland ^a	0.54 (0.94)	(dropped)
First generation	-0.91 (0.77)	(dropped)
Steinbrück ^b	20.28+ (12.10)	2.80*** (0.43)
Neither Merkel nor Steinbrück ^b	2.91** (0.96)	1.84*** (0.50)
Rile self-placement	-0.33+ (0.19)	-0.34*** (0.09)
INTERCEPT	0.41 (1.32)	1.56** (0.59)
<i>Case-specific determinants of FDP vote relative to CDU/CSU vote</i>		
Post-election survey	-0.34 (1.35)	-0.44 (0.35)
System knowledge	-1.15 (0.84)	-0.95** (0.31)
Former USSR ^a	-19.52*** (0.69)	(dropped)
Poland ^a	1.76 (1.08)	(dropped)
First generation	-0.69 (0.89)	(dropped)
Steinbrück ^b	20.27+ (11.84)	1.72** (0.64)
Neither Merkel nor Steinbrück ^b	2.58* (1.23)	-0.67 (0.94)
Rile self-placement	0.35 (0.28)	0.07 (0.10)
INTERCEPT	-2.79 (2.05)	-0.20 (0.73)
N (alternatives)	1235	10930
N (cases)	247	2154
Bic	628.20	2505.58

Note: + $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$; robust standard errors, clustered on constituencies, are shown in parentheses; models estimated on weighted data to compensate for an oversampling of East German regions and to make the data more representative of the socio-structural outlook of the German voting age population (weight variable in the GLES 2013 dataset: *w_ipfges_2*); ^a reference category is remaining immigrant groups; ^b reference group is Merkel

Supplementary material references

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