## **ORIGINAL PAPER**



# Mind This Gap, Too: Political Orientations of People with Disabilities in Europe

Stefanie Reher<sup>1</sup>

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#### Abstract

People with disabilities constitute one of the largest minority groups in Europe, and yet our knowledge about how they relate to the political system remains limited. In addition to facing practical barriers such as inaccessible campaign material and polling stations, they often have fewer resources that facilitate and promote confidence and engagement in politics. Moreover, experiences of discrimination and low numbers of politicians with disabilities can generate feelings of disempowerment. Using European Social Survey data from 30 countries from 2002 to 2015, this study shows that people with disabilities have lower levels of internal and external efficacy, political trust and interest, and electoral participation. The disparities in internal efficacy and political interest disappear when accounting for education, income, employment, and social contact. Meanwhile, significant gaps in external efficacy, political trust, and turnout remain to be explained. Perceptions of discrimination strengthen the internal efficacy and political interest of citizens with disabilities but further decrease their external efficacy, political trust, and turnout. The study sheds light on a frequently overlooked dimension of political inequality, provides insights on several contributing factors, and highlights where further research is needed.

**Keywords** Political engagement · Disability · Political trust · Political inequality · Europe

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University of Strathclyde, McCance Building, 16 Richmond Street, Glasgow G1 1XQ, UK



Stefanie Reher stefanie.reher@strath.ac.uk

## Introduction

Inequality in political engagement between different social groups can be damaging to the health of democratic societies, especially if they mirror and reinforce existing patterns of inequality, marginalization, and discrimination (Verba et al. 1995). For this reason, political scientists have devoted considerable amounts of research to the political orientations of disadvantaged social groups such as women, ethnic and racial minorities, and the poor (e.g. Bergh 2007; Leighley and Vedlitz 1999; Verba et al. 1995). In contrast, one of the largest minority groups across the world has received comparatively little attention so far: people with disabilities. In Europe, around one in six people has a disability—that is, around 80 million citizens in total (European Commission 2010). They face numerous barriers in life which might reduce their confidence in and engagement with democratic politics.

Obvious practical barriers include inaccessible campaign material and polling stations (FRA 2014; Schur et al. 2002). But people with disabilities also tend to have lower levels of socioeconomic resources, including education, income, employment, and social integration (Eurostat 2017; Kruse 1998; WHO 2011), which have been shown to be powerful predictors of political engagement (Brady et al. 1995; Burns et al. 2001; Rosenstone and Hansen 1993; Verba and Nie 1972; Verba et al. 1995). In addition, many people with disabilities face stigma, discrimination, marginalization—and some would say oppression (Charlton 1998) in their daily lives (Corrigan 2014; Rohmer and Louvet 2018). These experiences and inequalities may generate the impression that the political process is not accessible to them and might dampen their engagement, although they might also have a mobilizing effect (Anspach 1979; Mattila and Papageorgiou 2017). Finally, the low numbers of politicians with disabilities might also contribute to disability gaps in political engagement, as has been argued and shown in the contexts of other underrepresented groups (e.g., Mansbridge 1999; Phillips 1995; Atkeson 2003; Banducci et al. 2004; Bobo and Gilliam 1990).

A small but important set of studies from the US as well as recent research from Europe have explored the effects of disability on political attitudes and engagement and largely confirm the expected negative effects (e.g., Gastil 2000; Mattila et al. 2017; Mattila and Papageorgiou 2017; Miller and Powell 2016; Schur and Adya 2013; Schur et al. 2002, 2003, 2005, 2013; Shields et al. 1998). Some of them also examine potential explanations of the gaps, including socioeconomic resources, social integration, and discrimination perceptions (Mattila and Papageorgiou 2017; Schur and Adya 2013; Schur et al. 2003, 2005; Mattila et al. 2017). This study contributes to these efforts with a comprehensive discussion and analysis of the role of disability in a set of political orientations that are key indicators of the health of democratic systems across a large number of countries. It examines disability gaps in internal and external political efficacy, political trust, and psychological and behavioral political engagement across Europe and assesses the roles of resources and feelings of discrimination in explaining them.

The findings from analyses of European Social Survey (ESS) data covering 30 European countries from 2002 to 2015 are unambiguous: all of the examined



political attitudes and behaviors display disability gaps. Differences in resources seem to account for some of the disparities: when controlling for individuals' education, income, employment situation, and social interactions, the gaps in internal efficacy and political interest vanish. Education and income play particularly important roles. Meanwhile, the gaps in external efficacy, political trust, and turnout also shrink when accounting for resources but remain statistically and substantively significant. Feeling discriminated against for having a disability influences the examined political orientations in distinct ways. Interestingly, it increases internal efficacy and political interest beyond the levels found among people without disabilities. At the same time, it further decreases external efficacy, political trust, and turnout. Yet, it does not explain the disability gaps in these orientations.

The study sheds light on a weak spot in European democracy that has received fairly little attention by political scientists, policy-makers, and the media alike. At the same time, it suggests that the disparities can to some degree be redressed by closing gaps in the kinds of resources that empower citizens and facilitate participation: most importantly, education, integration in the labor market, and financial resources. By discussing additional potential causes for the disability gaps in political engagement, including low levels of descriptive representation, the study prepares the ground for further research in this field.

## The Links Between Disability and Political Orientations

This study focuses on five political orientations widely recognized as essential for citizens' participation in the democratic process, the representation of their opinions, and their sustained support of the democratic system: internal and external efficacy, political trust, and engagement in the form of political interest and electoral participation. High aggregate as well as roughly equal levels of efficacy, trust, and engagement are often considered key indicators of the health of democratic systems (Craig et al. 1990; Dalton 2004; Pharr and Putnam 2000). In this section, I discuss whether, and how, having a disability might negatively impact on these orientations by identifying factors that might mediate the relationships. The subsequent empirical analysis concentrates on the roles of two types of individual-level factors: different types of resources and perceptions of discrimination.

## **Political Efficacy**

Internal efficacy refers to a person's confidence in her ability to understand and effectively participate in politics, while external efficacy is the belief that government is responsive to citizen demands (Craig et al. 1990; Miller et al. 1980). Since both types of efficacy influence citizens' political engagement (e.g., Campbell et al. 1960; Rosenstone and Hansen 1993; Verba and Nie 1972), disparities in them between social groups can have far-reaching consequences (Miller 1974, p. 951). Studies from the US suggest that people with disabilities tend to have lower levels



of internal, external, and "group efficacy", referring to government responsiveness to one's social group (Gastil 2000; Schur and Adya 2013; Schur et al. 2003). Meanwhile, in Finland internal efficacy is not influenced by disability while external efficacy is at most weakly affected (Mattila et al. 2017).

There are several potential reasons for expecting disability gaps in both types of efficacy. People with disabilities are often labeled and treated as dependent and less competent (e.g., Anspach 1979; Corrigan 2014; Oliver 1996; Rohmer and Louvet 2018). Being exposed to this societal narrative and experiencing discrimination might affect their confidence in their own ability to participate in various spheres of life and society, including politics (Gastil 2000; Schur and Adya 2013). At the same time, the persistence of stigma and exclusion might generate the feeling that policy-makers are not sufficiently concerned with improving the situation of people with disabilities, reducing their sense of external efficacy (Opokua et al. 2016).

These patterns might be reinforced by the lower levels of education, employment, and income and higher risk of social isolation of people with disabilities (Eurostat 2017; Kruse 1998; Schur and Adya 2013). The relative scarcity of these resources may nurture a feeling of being powerless and sidelined (cf., Almond and Verba 1963; Verba et al. 1995). Indeed, Schur et al. (2003) find that the disability gap in internal efficacy in the US disappears when controlling for demographics, resources, and integration in social networks. They emphasize the role of education, which provides people with the necessary skills to communicate and interpret politics and to organize their activities—what Verba et al. (1995) call "civic skills". Moreover, employment can give people with disabilities "an increased sense of inclusion in mainstream society, counteracting the marginalization" (Schur et al. 2003, p. 135), and makes them more likely to feel that they are given equal respect and influence. Nevertheless, in this study the gaps in external and group efficacy remain significant when controlling for resources.

Another potential reason for gaps in both internal and external efficacy are the low numbers of politicians with (visible or disclosed) disabilities, which is a widely recognized fact despite a lack of comprehensive statistics (Barker 2016; Booth 2017; Cowley 2013; FRA 2014; House of Commons 2010). The underrepresentation of members of a particular social group in politics can generate the social meaning that they are not able to rule (Mansbridge 1999). As a result, they can feel "more subjects than citizens" (Atkeson 2003, p. 1043; see also Phillips 1995) and have lower confidence in their ability to effectively participate in politics (Alexander 2012).

As for external efficacy, citizens have been argued and shown to perceive members of their own social groups as more accessible, open to communication, and responsive (e.g., Atkeson and Carrillo 2007; Bobo and Gilliam 1990; Banducci et al. 2004; Fenno 1978; Gay 2002; Mansbridge 1999). Although the evidence on the relationship between the *descriptive* and *substantive* representation Pitkin (1967) of a social group is mixed (e.g., Bratton and Ray 2002; Kittilson 2008; Reher 2018; Schwindt-Bayer and Mishler 2005), the argument that political elites from a social group are often better at representing the group's interests due to shared experiences remains pervasive (Phillips 1995; Mansbridge 1999). The use of the slogan "Nothing About Us Without Us" by disability rights organizations since the 1990s can be seen as an indication that many people with disabilities



indeed strongly support their active participation in the political decision-making process (Charlton 1998). In sum, experiences of stigma and discrimination, lower resources providing "civic skills", and descriptive underrepresentation may all lead to lower levels of internal and external efficacy among people with disabilities.

## **Political Trust**

Trust in political institutions increases citizens' acceptance of political decisions and thus the strength and effectiveness of democratic regimes (Hetherington 2005; Marien and Hooghe 2011). Systematically lower levels of political trust among members of a social group can threaten this stability and, perhaps more importantly, indicate that they do not trust the political system to protect their rights and serve their interests. People with disabilities have been shown to have less trust in government officials and political institutions in the US (Schur and Adya 2013) and Finland (Mattila et al. 2017, p. 60). One potential reason for this trust gap are negative direct experiences with public institutions: people with disabilities are more likely to require public services, including healthcare, while at the same time experiencing more problems accessing them (Mattila and Rapeli 2017; McColl et al. 2010; Sakellariou and Rotarou 2017). This may lead to cynicism about and frustration with the government (Gastil 2000; Kumlin 2004), which might be further fueled by other experiences of discrimination (Schildkraut 2005).

Political trust might be further depressed through the low numbers of politicians with disabilities. As Mansbridge (1999, p. 651) argues, the feeling of inclusion generated through descriptive representation increases the perceived legitimacy of the political system and its outcomes. In addition, "representatives and voters who share membership in a subordinate group can also forge bonds of trust based specifically on the shared experience of subordination" (1999, p. 641). At the same time, the empirical evidence for the relationship between descriptive representation and political trust is rather weak in the contexts of gender and race (e.g., Bobo and Gilliam 1990; Banducci et al. 2004; Cowley 2014; Gay 2002; Lawless 2004; Schwindt-Bayer and Mishler 2005).

Resources might also play a role, although existing research offers diverging conclusions regarding the effects of education, occupational prestige, financial security, and employment on political trust (e.g., Almond and Verba 1963; Catterberg and Moreno 2006; Hooghe et al. 2012, 2015; Mishler and Rose 2001; Rahn and Rudolph 2005). Social interactions in a vibrant civil society have been argued to facilitate the development of political institutions in which people trust (Almond and Verba 1963; Putnam 1993). Yet, at the individual level, studies have found weak or no effects of engagement in voluntary associations (Brehm and Rahn 1997; Rahn and Rudolph 2005) and interpersonal trust (Mishler and Rose 2001; Newton and Norris 2000). Thus, while feeling discriminated against might reduce the political trust among people with disabilities, it is unclear whether lower levels of resources and of descriptive representation contribute to it.



## **Political Engagement**

Citizens who regularly abstain from voting do not participate in choosing the political leaders, signal their policy preferences to them, or incentivize them to respond to their demands in view of future elections (Rosenstone and Hansen 1993, p. 247; Verba et al. 1995). Consequently, their preferences are likely to be underrepresented in policy (cf., Peters and Ensink 2015), which can lead them to further withdraw from politics (Reher 2014). This "vicious circle" is particularly problematic if it disproportionately affects certain social groups, especially if they are already disadvantaged, like people with disabilities.

Two key indicators of engagement are electoral participation and psychological engagement in the form of political interest, which is an important predictor of turnout (Campbell et al. 1960). Research from the US (Miller and Powell 2016; Schur and Adya 2013; Schur and Kruse 2000; Schur et al. 2002, 2005; Shields et al. 1998) and Europe (Mattila and Papageorgiou 2017; Wass et al. 2017, including Finland (Mattila et al. 2017) and the UK (Clarke et al. 2006), has consistently shown that people with disabilities are less likely to register to vote and to turn out at the ballot box. Mental health issues as well as poor health more generally can also depress turnout (e.g., Denny and Doyle 2007; Mattila et al. 2013, 2017; Ojeda 2017; Ojeda 2015; Pacheco and Fletcher 2015).

The evidence is much more mixed when it comes to interest in politics. In the US, Gastil (2000) observes higher interest levels among people with disabilities, whereas Schur and Adya (2013) find no coherent pattern. Mattila et al. (2017, p. 57) discover a negative effect of health but not of disability in Finland. This suggests that many people with disabilities abstain from voting not because they are apathetic towards politics but because they are prevented from doing so by physical or psychological barriers. Certain types of impairment can make it very difficult to access political information, participate in group meetings and events, and get to the polling station (FRA 2014; House of Commons 2010; Schur et al. 2002). This explains why postal voting is more common among people with disabilities in the US (Miller and Powell 2016) and why those with difficulties going outside by themselves have the lowest turnout (Schur and Adya 2013).

Resources are also likely to matter here: education, income, and employment provide citizens with the skills, time, and means to follow the political debate and take part in political activities. Moreover, meeting others at the workplace, in educational institutions or socially exposes people to a range of political views and discussion and makes them more likely to be recruited into political groups and activities (Brady et al. 1995; Burns et al. 2001; Rosenstone and Hansen 1993; Verba and Nie 1972; Verba et al. 1995; Wolfinger and Rosenstone 1980). These opportunities remain out of reach for many people with disabilities due to lower education, income, and employment levels. Overcoming various barriers in everyday life also requires time, money, and mental resources, which could otherwise be invested in other activities like political activism (Gastil 2000: 599; Schur et al. 2002, 2013). Several studies have explored the role of resources in the disability gap in turnout, with mixed results. Education explained a large part of the turnout gap in one US study (Schur and Adya 2013) but mattered only among those who were not



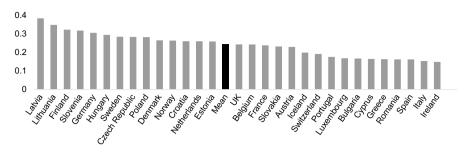


Fig. 1 Proportions of respondents indicating a disability in 30 European countries

employed in another (Schur et al. 2002). Income did not explain the turnout gap in Finland (Mattila et al. 2017, p. 46). Conversely, several US studies suggest that employment is crucial for closing the disability turnout gap and that income is partly driving this effect (Schur and Kruse 2000; Schur et al. 2002).

Part of the reason for this mixed picture might be that perceptions of discrimination and devaluation, which may be linked to low levels of resources, might at the same time increase political engagement. Such mobilization effects are thought to require a positive self-image (Anspach 1979), attribution of blame to the system (Miller et al. 1981), identification with the minority group (Schildkraut 2005), and resentment about unfair treatment (Mattila and Papageorgiou 2017). Again, the existing evidence is mixed: Mattila and Papageorgiou (2017) find that feelings of disability-based discrimination amplify the positive effects of disability on contacting politicians and participating in protests but also its negative effect on voting.

Finally, descriptive representation and its empowering effect might again play a role. There is evidence for a positive effect of descriptive representation on turnout among women and ethnic and racial minorities (Wolbrecht and Campbell 2007; Atkeson 2003; Barreto 2007; Bobo and Gilliam 1990; Banducci et al. 2004; but see Gay 2001; Karp and Banducci 2008; Bühlmann and Schädel 2012), whereas it is much weaker for political interest (Atkeson 2003; Reingold and Harrell 2010). These findings reinforce the expectation of a disability gap in turnout but not political interest.

## **Data and Method**

To examine the effects of disability on the five political orientations and the roles of resources and perceptions of discrimination, I use data from 30 countries (see Fig. 1) from the first seven waves of the European Social Survey (ESS), covering the period 2002–2015<sup>1</sup>. The variable indicating whether a respondent has a disability is based on the survey question "Are you hampered in your daily activities in any way by any

<sup>&</sup>lt;sup>1</sup> The dataset and code to replicate all analysis and figures are available in the Political Behavior Dataverse (https://doi.org/10.7910/DVN/JXJ0ZS)



longstanding illness, or disability, infirmity or mental health problem? If yes, is that a lot or to some extent?" This question, which is identical or similar to those used in other studies of disability and political orientations (e.g., Gastil 2000; Mattila and Papageorgiou 2017; Mattila and Rapeli 2017), includes important elements from the definition in Article 1 of the United Nations Convention on the Rights of Persons with Disabilities, according to which "persons with disabilities include those who have long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others" (UN General Assembly 2007). The definition reflects the contention of the widely accepted social model of disability that "it is society which disables physically impaired people" by creating barriers hindering their full participation in society (Oliver 1996, p. 22; see also Shakespeare and Watson 1997; WHO 2001).

Overall, 24.4% of respondents indicated that they were restricted in their daily activities, with 18.3% being hampered 'to some extent' and 6.0% 'a lot'. I merge the latter two categories to create a binary indicator of disability. Figure 1 shows the proportions of respondents with a disability for each country, which ranges from 14.8% in Ireland to 38.3% in Latvia. These stark cross-national differences reflect the contingent nature of disability: people with the same kinds of impairment may be restricted to different degrees in different societies. Yet, the measure is also likely to be sensitive to under- and overreporting due to its subjective nature. Cross-national differences in the stigma associated with disability might affect individuals' tendency to downplay their "differentness" and reconcile their positive self-image with their commitment "to cultural conceptions of normalcy" (Anspach 1979, p. 769; cf., Watson 2002).

At the same time, survey questions that ask about impairments in a medical sense ignore the importance of barriers emphasized by the social model. Meanwhile, measures identifying respondents as having a disability if they name it as the reason for not participating in the labor market (e.g., Shields et al. 1998) have the disadvantage of missing the many people with disabilities who are in full-time or part-time employment or are not part of the labor force for other reasons (Hale 2001). This is important since the role of disability in political orientations might vary between these different groups of citizens (Schur and Kruse 2000; Schur et al. 2002).

## **Dependent Variables**

I use a set of five dependent variables measuring political orientations. The two measures of efficacy are each additive indices of three survey items with 11-point scales. *Internal efficacy* combines the questions "How able do you think you are to take an active role in a group involved with political issues?", "How confident are you in your own ability to participate in politics?", and "How easy do you personally find it to take part in politics?" *External efficacy* is measured by the items "How much would you say the political system in [country] allows people like you to have a say in what the government does?", "How much would you say that the political system in [country] allows people like you to have an influence on politics?", and "How much would you say that politicians care what people like you think?". With Cronbach's alpha = 0.84 the internal consistency of both scales is high. The efficacy



items are only included in Round 7 (2014/2015), reducing the number of countries analyzed for these items to 19.

A political trust index was created by averaging respondents' trust in politicians, parties, and the national parliament measured on 11-point scales.<sup>2</sup> This index has a high internal validity with Cronbach's alpha=0.91. Political interest is measured on a four-point scale from 'not interested at all' to 'very interested'. All four scales were normalized to range from 0 to 1. Lastly, respondents' turnout is measured by the question of whether they voted in the last election. It should be noted that this measure includes both voting in person and by mail, which is important given that people with mobility impairments demonstrate higher levels of postal voting (Miller and Powell 2016; Schur and Adya 2013). An issue that all researchers analyzing turnout through survey data face is overreporting. However, Wass et al. (2017, p. 509) report relatively low rates of overreporting for Rounds 1–6 of the ESS (7.9 percentage points). Since we have no reason to expect that having a disability should affect overreporting, it is unlikely to bias the results.

## **Control Variables**

I include a set of five resource indicators to test whether disability (still) influences the political orientations when adding them to the models. *Education* is measured by the number of years spent in full-time education. *Income* is the decile of the household income range in the country into which the respondent falls.<sup>3</sup> Employment might affect political engagement not only by instilling a sense of financial autonomy and contribution to society but also by generating social interactions that expose people to political discussion and recruitment. I therefore create the dummy variable *workplace*, where 0 is assigned to respondents who are unemployed, cannot work because they are permanently sick or disabled, are doing housework, are looking after dependents or are retired. 1 indicates being in paid work, education or military and community service. *Social contact* indicates the frequency with which a respondent meets socially with friends, relatives or work colleagues, measured on a 7-point scale ranging from 'never' to 'every day'. *Religious service attendance*, another potential source of social integration and civic skills, is measured as a dummy with 1 indicating monthly to daily attendance and 0 indicating less frequent or no attendance.

To examine the role of discrimination, I follow Mattila and Papageorgiou (2017) by dividing respondents into three groups. Using the survey items "Would you describe yourself as being a member of a group that is discriminated against in this country?" and "On what grounds is your group discriminated against?", I construct an indicator that distinguishes between people without disabilities, those who have

<sup>&</sup>lt;sup>3</sup> In Rounds 1–3, the ESS measured income on a uniform scale with 12 categories. These categories were assigned to the respective deciles in the country based on the coding in Round 4 or the next round in which a country participated. If a category overlaps with the income ranges of more than one decile, it was recoded into the mean of these deciles.



<sup>&</sup>lt;sup>2</sup> Round 1 of the ESS did not include the measure of trust in parties; here, the index is the mean of trust in parliament and trust in politicians. Similarly, where data on one or two of the components is missing for an individual respondent, the index value is composed of the non-missing data.

a disability and feel discriminated against on these grounds, and those who have a disability but do not feel discriminated against. Among the respondents with a disability, 1.9% feel discriminated against because of it. While this proportion is quite low, with 1374 respondents the category is sufficiently large for the analyses (2017, p. 512).

Finally, I include several demographic controls: *age* in years and *age squared*, a *female* dummy, and a dummy indicating whether a respondent has an *immigration background*, meaning that he or she or at least one parent was born outside the country. Age is particularly important since it is known to have a (curvilinear) effect on political engagement and at the same time strongly increases the likelihood of having a disability (the mean age in the sample is 59 years among people with and 46 years among people without disabilities).<sup>4</sup>

## Results

I begin by exploring the disparities in political attitudes and engagement related to disability in each European country in the sample. I estimate linear regression models for internal and external efficacy, political trust, and political interest and a logistic regression model for turnout, including the disability indicator as well as the demographic controls as independent variables and year fixed effects. Figure 2 shows the coefficients of disability for each country. While there is some crossnational variation in the size and statistical significance of the effect for each of the dependent variables, it is negative and statistically significant in the large majority of cases. On average, levels of internal and external efficacy, trust, and interest are around 3 percentage points lower among people with disabilities. Reported turnout rates are on average 5 percentage points lower, with the highest gap at around 9 percentage points in Luxembourg.

A prerequisite for resources to explain parts of these gaps is that they differ between people with and without disabilities. Figure 3 shows the mean differences in each country. In all countries, people with disabilities indeed have lower levels of education (1.8 years less on average), income (1.3 deciles lower), employment (35 percentage points less), and social contact (0.45 points lower on the 7-point scale; only Iceland does not have a significant disability gap). In contrast, people with disabilities are significantly more likely to attend religious services in two-thirds of the countries (5.8 percentage points on average). We might thus expect parts of the disability gaps to be explained by these differences in resources.

In order to test this expectation, I regress each of the dependent variables on disability alongside the demographic control variables on the pooled sample. I then include the resource indicators to examine the extent to which they can account for the relationship between disability and political orientations. It should be noted

<sup>&</sup>lt;sup>4</sup> The role of age in the relationships between disability and political interest and turnout is explored in the Supporting Information (SI) B. Details about coding and descriptives for all variables can be found in SI A.



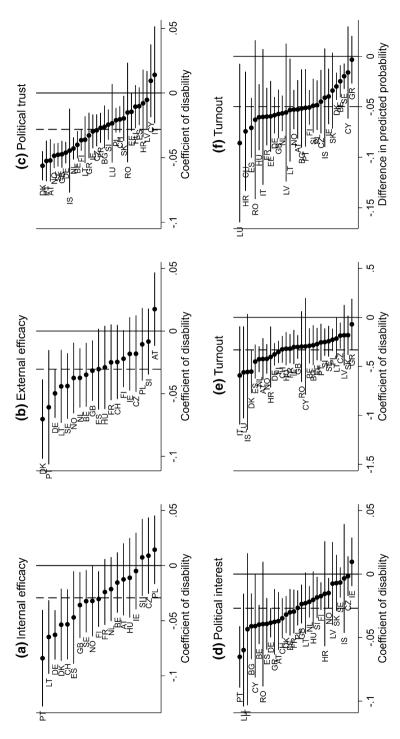


Fig. 2 Effect of disability on political orientations, controlling for age, gender and year. Notes In (a)—(e), values are coefficients of disability with 95% CIs from linear regression models (logistic regression for turnout) in each country. Models include age, age-squared, gender, immigration background and year FEs and apply post-stratification weights. In (f), values are differences in predicted probability of turnout with 95% CIs between citizens without and with disability, with covariates at their means. Dashed lines indicate means of coefficients/differences in probability across countries



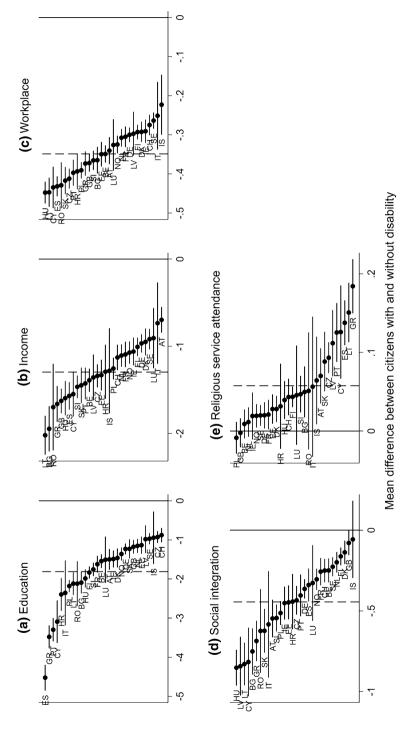


Fig. 3 Differences in resources between people with and without a disability. Notes In (a)—(e), values are differences with 95% confidence intervals in each country with post-stratification weights applied. Positive values mean higher values among people with disabilities. Dashed lines indicate average mean difference across countries



that it is not possible with the cross-sectional data to establish to what extent the resources are causal mediators of the disability-orientations relationships, as some of them may at the same time be causes or covariates of disability (cf., Fiedler et al. 2011): in particular education and income have been pointed out as determinants of health and disability (Adams et al. 2003; Adda et al. 2003; Schoeni et al. 2005). Nevertheless, examining how the disability gaps in political orientations change when controlling for resources will provide indications about the extent to which the gaps may be addressed by reducing differences in resources and the need to identify additional explanations.

Tables 1, 2 and 3 display the results of a set of multilevel linear regression models (multilevel logit regression for turnout).<sup>5</sup> The models are estimated on the pooled data and include year fixed effects as well as random intercept variance components at the country level, taking into account that unobserved variables at this level may affect citizens' political orientations. The first set of models include disability as well as age, age squared, gender, and immigration background.<sup>6</sup> In the second set of models, I add the resource indicators. The third set of models regress the outcomes on the indicator of disability discrimination alongside the demographic controls; the fourth add the resources. Finally, I estimate additional models for political trust, adding external efficacy as an independent variable, and for turnout, including political interest and strength of party identification.

Model 1a in Table 1 shows that having a disability is associated with a lower level of internal efficacy of around 3.3 percentage points, around half the magnitude of the effect of gender. However, when the resource indicators are included, all of which have significant positive effects on internal efficacy, the coefficient of disability becomes insignificant (Model 1b). We can examine how much each resource accounts for the disability coefficient by including one at a time (results not shown). The coefficient shrinks most strongly when controlling for income (from -0.033 to -0.018) and education (-0.020), followed by employment (-0.026), while it remains more or less stable when controlling for social interactions (-0.031) and religious service attendance (-0.033). Achievements in education and the economy thus seem to be the most important factors among those analyzed to instill people with disabilities with the confidence to effectively participate in politics.

In the models testing the role of discrimination, the coefficients compare both groups of people with disabilities to those without disabilities. Below the tables, I provide the coefficients comparing people with disabilities who feel discriminated against to those who do not. In Model 1c, a disability gap in internal efficacy only exists for people who do not feel discriminated against. This gap vanishes when

<sup>&</sup>lt;sup>6</sup> Models that include only disability as an independent variable are shown in Table C1. When excluding the demographics, disability is negatively associated with internal and external efficacy and political trust but unrelated to political interest and turnout. Yet, since the relationships are clearly confounded by age (cf. SI B), these models are not reported here.



<sup>&</sup>lt;sup>5</sup> The results of equivalent models to those in Tables 1 and 2 but with country fixed effects instead of random effects are provided in Tables C3–C5 and are almost identical. SI D shows the coefficients of disability for interest, trust, and turnout separately for each ESS round; there are no substantial or systematic differences over time.

Table 1 Multilevel linear regression of internal and external efficacy on disability and controls

	(1) Internal efficacy	acv.			(2) External efficacy	Cacv		
		Can			(2)	cacy		
	(a)	(b)	(c)	(p)	(a)	(p)	(c)	(p)
Disability	-0.033***	- 0.009			-0.034**	-0.016***		
	(0.006)	(0.005)			(0.004)	(0.003)		
Disability, no			-0.034***	-0.010			-0.033***	-0.016***
discrimination <sup>a</sup>			(0.006)	(0.005)			(0.004)	(0.004)
Disability,			0.006	0.057*			-0.077***	-0.035*
discrimination <sup>a</sup>			(0.021)	(0.026)			(0.016)	(0.017)
Age	0.005***	0.002***	0.005***	0.002***	-0.001	-0.003***	-0.001	-0.003***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Age squared	-0.000***	***000.0	-0.000***	-0.000**	-0.000	***000.0	-0.000	0.000***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Female	-0.071***	-0.065***	-0.071***	-0.065***	-0.022***	-0.019***	-0.022***	-0.019***
	(0.004)	(0.004)	(0.004)	(0.004)	(0.003)	(0.003)	(0.003)	(0.003)
Immigration	-0.019	-0.013	-0.019	-0.013	-0.001	0.002	-0.001	0.002
background	(0.010)	(0.010)	(0.010)	(0.010)	(0.011)	(0.010)	(0.011)	(0.010)
Education		0.015***		0.015		0.008***		0.008***
		(0.001)		(0.001)		(0.001)		(0.001)
Income		0.010***		0.010***		0.008***		0.008***
		(0.001)		(0.001)		(0.000)		(0.000)
Workplace		0.012*		0.013**		0.019***		0.019***
		(0.005)		(0.005)		(0.005)		(0.005)
Social integration		0.011***		0.011***		0.007***		0.007***
		(0.002)		(0.002)		(0.001)		(0.001)
Religious attend-		0.019***		0.019***		0.041***		0.041***
ance		(0.004)		(0.004)		(0.004)		(0.004)



Table 1 (continued)

	(1) Internal effic	icacy			(2) External efficacy	icacy		
	(a)	(b)	(c)	(p)	(a)	(b)	(c)	(p)
Constant	0.367***	0.067**	0.367***	0.066**	0.405***	0.214***	0.404***	0.214***
	(0.021)	(0.024)	(0.021)	(0.024)	(0.027)	(0.026)	(0.027)	(0.026)
Intercept variance 0.007	0.007	0.005	0.007	0.005	0.009	0.008	0.009	0.008
	(0.002)	(0.001)	(0.002)	(0.001)	(0.002)	(0.002)	(0.002)	(0.002)
BIC	-4455	8669-	- 4449	-7003	-11,440	-12,875	-11,437	-12,866
N level 1 (level 2) 28,520 (19)	28,520 (19)	28,520 (19)	28,520 (19)	28,520 (19)	28,520 (19)	28,520 (19)	28,520 (19)	28,520 (19)

<sup>a</sup>Reference category = no disability. Coefficients (SE) of disability, discrimination with reference category = disability, no discrimination: 1c: 0.039 (0.022); 1d: 0.067\* (0.027); 2c: -0.045\*\* (0.016); 2d: -0.019 (0.017)

\*p<0.05; \*\*p<0.01; \*\*p<0.001. All models include year fixed effects. Post-stratification weights applied



Table 2 Multilevel linear regression of political trust and interest on disability and controls

	(3) Political trust	ust				(4) Political interest	terest		
	(a)	(p)	(c)	(p)	(e)	(a)	(q)	(c)	(p)
Disability	-0.034***	-0.023***				-0.024***	0.001		
	(0.003)	(0.002)				(0.003)	(0.003)		
Disability, no			-0.033***	-0.023***	-0.015***			-0.024***	0.000
discrimination <sup>a</sup>			(0.003)	(0.002)	(0.003)			(0.003)	(0.002)
Disability,			-0.089***	-0.066***	-0.030*			-0.001	0.040**
discrimination <sup>a</sup>			(0.013)	(0.012)	(0.012)			(0.015)	(0.014)
Age	-0.002***	-0.004***	-0.002***	-0.003***	-0.003***	0.009***	0.006***	0.009***	0.006***
	(0.000)	(0.001)	(0.000)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Age squared	0.000***	0.000***	0.000***	***0000	0.000***	-0.000***	-0.000**	-0.000***	**000.0-
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Female	-0.007**	-0.005**	-0.007**	-0.005**	0.001	-0.086***	-0.080***	-0.086**	-0.080***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.003)	(0.005)	(0.004)	(0.005)	(0.004)
Immigration	0.016**	0.017**	0.016**	0.017**	0.021***	-0.006	-0.002	-0.006	-0.002
background	(0.006)	(0.006)	(0.006)	(0.006)	(0.005)	(0.008)	(0.006)	(0.008)	(0.006)
Education		0.004***		0.004***	0.001		0.019***		0.019***
		(0.001)		(0.001)	(0.000)		(0.001)		(0.001)
Income		0.005		0.005***	0.002***		0.010***		0.010***
		(0.001)		(0.001)	(0.001)		(0.001)		(0.001)
Workplace		0.014***		0.014***	0.007		0.004		0.004
		(0.003)		(0.003)	(0.005)		(0.004)		(0.004)
Social integration		0.004***		0.004***	0.001		0.008		0.008***
		(0.001)		(0.001)	(0.001)		(0.001)		(0.001)
Religious attend-		0.044***		0.044**	0.031***		0.016***		0.016***
ance		(0.003)		(0.003)	(0.005)		(0.004)		(0.004)



Table 2 (continued)

	(3) Political trust	st				(4) Political interest	erest		
	(a)	(b)	(c)	(p)	(e)	(a)	(p)	(c)	(p)
External efficacy					0.625***				
					(0.019)				
Constant	0.468***	0.353***	0.467***	0.353***	0.180***	0.269***	-0.046	0.269***	0.266***
	(0.020)	(0.020)	(0.020)	(0.020)	(0.018)	(0.025)	(0.034)	(0.025)	(0.025)
Intercept variance	0.009	0.009	0.009	0.009	0.004	0.006	0.004	0.006	0.004
	(0.002)	(0.002)	(0.002)	(0.002)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
BIC	-75,907	-80,822	- 75,969	-80,856	-22,872	60,302	42,696	60,307	42,687
N level 1 (level 2) 207,289 (30)	207,289 (30)	207,289 (30)	207,289 (30)	207,289 (30)	28,440 (19)	208,325 (30)	208,325 (30)	208,325 (30)	208,325 (30)

<sup>a</sup>Reference category = no disability. Coefficients (SE) of disability, discrimination with reference category = disability, no discrimination: 3c: -0.056\*\*\* (0.012); 3d: -0.044\*\*\* (0.011); 3e: -0.015 (0.011); 4c: 0.023 (0.014); 4d: 0.040\*\* (0.013)

\*p<0.05; \*\*p<0.01; \*\*\*p<0.001. All models include year fixed effects. Post-stratification weights applied

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Table 3 Multilevel logit regression of turnout on disability controls

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	(5) Turnout				
	(a)	(b)	(c)	(p)	(e)
Disability	-0.316***	-0.154***			
Disability, no discrimination <sup>a</sup>	(0.019)	(0.01)	-0.311***	-0.153***	-0.180***
•			(0.019)	(0.016)	(0.017)
Disability, discrimination <sup>a</sup>			-0.519***	-0.204*	-0.339***
			(0.092)	(0.101)	(0.101)
Age	0.101***	0.093***	0.101***	0.093***	0.085***
	(0.005)	(0.014)	(0.005)	(0.014)	(0.006)
Age squared	-0.001***	-0.001***	-0.001***	-0.001***	-0.001***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Female	-0.048	-0.024	-0.048	-0.024	0.160***
	(0.028)	(0.026)	(0.028)	(0.026)	(0.023)
Immigration background	-0.752***	-0.768***	-0.752***	-0.768***	-0.814***
	(0.094)	(0.089)	(0.094)	(0.089)	(0.087)
Education		0.091***		0.091***	0.052***
		(0.008)		(0.008)	(0.007)
Income		0.080***		0.080***	0.062***
		(0.008)		(0.008)	(0.007)
Workplace		0.136***		0.136***	0.139***
		(0.033)		(0.033)	(0.033)
Social integration		0.078***		0.078***	0.061***
		(0.008)		(0.008)	(0.007)



Table 3 (continued)

	(5) Turnout				
	(a)	(b)	(c)	(p)	(e)
Religious attendance		0.437***		0.437***	0.388**
Political interest		(0.041)		(0.041)	(0.041) $0.536***$
Party identification					(0.035)
					(0.026)
Constant	-1.263***	-3.369***	-1.265***	-3.369***	-3.518***
	(0.154)	(0.238)	(0.154)	(0.238)	(0.180)
Intercept variance	0.344	0.346	0.344	0.346	0.315
	(0.077)	(0.079)	(0.077)	(0.079)	(0.070)
BIC	181,719	175,531	181,724	175,543	146,629
N level 1 (level 2)	197,989 (30)	197,989 (30)	197,989 (30)	197,989 (30)	174,179 (30)

<sup>a</sup>Reference category = no disability. Coefficients (SE) of disability, discrimination with reference category = disability, no discrimination: 5c: -0.207\* (0.091); 5d: -0.051 (0.100); 5e: -0.159 (0.101) \*p<0.05; \*\*p<0.01; \*\*\*p<0.001. All models include year fixed effects. Post-stratification weights applied



controlling for the resources (Model 1d). In this model, people who feel discriminated against because of their disability in fact feel more capable of participating in politics than those who do not perceive discrimination or are not disabled. This finding lends support to the idea that a group identity paired with resentment towards society's treatment of the group can have a mobilizing effect (cf., Mattila and Papageorgiou 2017).

The disability gap in external efficacy, which is initially similar in size to that in internal efficacy, decreases by about half when the resources are included in the model but remains statistically significant (Model 2b), in line with previous findings from the US (Gastil 2000; Schur and Adya 2013; Schur et al. 2003). The gap is now similarly large as that between people with a difference of 2 years of education. Again, while no one resource variable by itself is responsible for decreasing the disability gap, education, income, and employment are the most important factors (results not shown). Interestingly, feeling discriminated against on the grounds of disability has the opposite effect for external efficacy as for internal efficacy: it further decreases feelings of politicians' responsiveness (Model 2c), although the difference between disabled people who do and do not feel discriminated against becomes insignificant when controlling for resources (Model 2d). Keeping resource levels constant, people with a disability who do not report discrimination have a 1.6 percentage points lower level of external efficacy as compared to non-disabled people, while feeling discriminated against increases this gap to 3.5 percentage points.

Political trust has a disability gap of 3.4 percentage points, which is twice as large as the one between people with and without an immigration background (Table 2, Models 3a). All of the resources positively influence political trust, but controlling for them only decreases the disability gap by a third (Model 3b). Again, education, income, and employment decrease the coefficient most strongly (results not shown). For people who feel discriminated against due to their disability, the difference in trust to people without disabilities is quite large at 9 percentage points (Model 3c), shrinking only slightly when controlling for the resources. Meanwhile, a significant gap also continues to exist for people with disabilities with no discrimination perceptions. Since external efficacy is known to be an important predictor of political trust, I also estimate a model including external efficacy as an independent variable to test whether it explains the negative effects of disability and discrimination on trust. While the coefficients decrease in magnitude, they remain statistically significant.<sup>7</sup>

While previous research has not consistently found effects of disability on political interest (e.g., Gastil 2000; Mattila et al. 2017; Schur and Adya 2013), we observe a statistically significant effect when controlling for other demographics. However, it disappears when the resources are controlled for (Model 4b). This supports the

<sup>&</sup>lt;sup>7</sup> The difference in trust between people with disabilities who feel discriminated against and those who do not is insignificant in Model 3e, but this is also the case in Model 3d when estimated on the reduced sample for which data on external efficacy exists, which means that there is no evidence that external efficacy mediates the effect of discrimination. Overall, the results are very similar when analyzing each component of the trust index separately (Table C6).



notion that the cognitive skills people obtain through education are crucial in enabling them to make sense of and engage with the political debate. Education and income reduce the disability coefficient most strongly, followed by employment. Meanwhile social interactions and religious service attendance, which have been argued to generate political discussion, appear to be much less important in generating political interest (results not shown). Feeling discriminated against increases the political interest of people with disabilities to the same level as that of people without disabilities, without taking resources into account (Model 4c). When controlling for the resources, the disability gap in interest vanishes for those who do not feel discriminated against, while those who do feel discriminated against now actually have higher political interest levels by around 4 percentage points than both other groups.<sup>8</sup>

Finally, a negative disability gap also exists in turnout and maintains statistical significance after accounting for resources and discrimination (Model 5d). This remains the case even when including political interest and the strength of party identification, which is measured on a 5-point scale ranging from no party identification to feeling very close to a political party (Model 5e). Feeling discriminated against magnifies the negative effect of disability on turnout, as in Mattila and Papageorgiou's (2017) study. While controlling for resources makes the turnout difference between people with disabilities who do and those who do not feel discrimination non-significant, both gaps to people without disabilities remain statistically significant (Model 5d).

To compare the magnitudes of the disability gap across the different models, I display the predicted probabilities of turnout for the different voter groups in Table 4. Controlling for age, gender, and immigrant background (Model 5a), the turnout rates of voters with disabilities are about 5 percentage points lower than those of voters without disabilities. This gap is relatively small compared to some of the figures from the US, where Schur et al. (2002) found a 20 percentage point difference in the 1998 election and Schur and Adya (2013) reported gaps between 4 and 17 percentage points. Still, it shows that Europeans with disabilities are substantially less likely to participate in deciding who governs their country. The difference is roughly halved to 2.3 percentage points when the resources are controlled for (Model 5b).

The predicted turnout from Model 5c shows that disability gap increases to almost 9 percentage points for people who feel discriminated against. As indicated above, the difference between disabled people with and without feelings of discrimination shrinks substantially when controlling for resources in Model 5d, suggesting that deprivation might partly drive the negative effect of discrimination on turnout. Adding political interest and party identification to the model only changes the predicted turnout levels marginally, suggesting that they do not play important roles in explaining the disability gap. This finding is not too surprising given that we found no disability gap in political interest after accounting for differences in resources.

<sup>&</sup>lt;sup>8</sup> Since political interest is measured on an ordinal 4-point scale, I also estimate multilevel ordered logit models as a robustness check (Table C2). The results confirm those presented here.



Table 4 Predicted probabilities of turnout among voters with and without disabilities

1	0				
	(5) Turnout				
	(a)	(b)	(c)	(p)	(e)
No disability	78.84 [75.74, 81.92]	78.79 [75.78, 81.80]	78.83 [75.74, 81.92]	78.79 [75.78, 81.80]	78.22 [75.50, 80.95]
Disability	73.77 [70.41, 77.12]	76.49 [73.43, 79.55]			
Disability, no discrimination			73.85 [70.50, 77.20]	76.51 [73.45, 79.57]	75.70 [72.91, 78.49]
Disability, discrimination			70.17 [65.42, 74.92]	75.71 [71.56, 79.86]	73.34 [69.47, 77.21]

Values are percentages of turnout based on predicted probabilities from average marginal effects based on Models 5a-e in Table 3, with 95% CIs in square brackets



## Conclusion

People with disabilities still face a multitude of barriers in our societies which can make it difficult for them to fully participate and succeed in the labor market and to have a fulfilling social and family life (Schur et al. 2013). In addition, this study showed, disabled people feel less confident in their ability to participate in and influence politics, perceive the political system as less responsive, and have lower trust in parliament, parties, and politicians. They also have less interest in politics and a lower propensity to vote. These findings highlight a regularly overlooked dimension of inequality in European democracies. They contribute to the fairly limited amount of existing research on the role of disability in political orientations, which has focused primarily on the US (e.g., Gastil 2000; Schur and Adya 2013; Schur et al. 2002, 2003; Shields et al. 1998) but more recently also on Europe, with important evidence coming from Finland (e.g., Mattila et al. 2017; Mattila and Papageorgiou 2017).

The disability gaps uncovered here might even still underestimate the real disparities. Individuals with impairments that make engagement difficult might also have a higher probability of nonresponse in standardized surveys (FRA 2014, p. 30). Yet, this risk is perhaps lower in the face-to-face interviews used by the ESS, on which this study draws, than for phone or internet surveys. Moreover, the crossnational variation in the proportion of citizens who report a disability in the survey (between 15 and 38%) suggests that the measure might not correctly identify all disabled respondents, which might lead to an underestimation of the effects on political orientations. At the same time, cross-national variation in people's propensity to identify as having a disability might also reflect differences in the extent to which barriers are addressed and removed. Further research should explore these differences and their consequences for the estimation of gaps in political orientations in more depth.

The implications of the findings are disconcerting. If members of a marginalized social group are skeptical about the political institutions that are meant to represent them and refrain from making their voices heard, their views are unlikely to be considered in the legislative process. This might entrench the existing inequalities and injustices (cf., Peters and Ensink 2015). What is more, a lack of attention to their concerns by political decision-makers may further decrease their satisfaction and engagement with the democratic process (Reher 2014, 2015). To react to these challenges, it is crucial to identify what causes the disability gaps.

While this study discusses number of potential drivers, the empirical analysis focused on a set of individual-level factors: cognitive, financial, and social resources that are known to facilitate political engagement as well as perceptions of discrimination. The lower average levels of education, income, employment, and social interactions of people with disabilities in Europe can indeed explain some of the disparities in political orientations, confirming previous findings from the US (Schur et al. 2002, 2003). Accounting for these factors eliminated the disability gaps in internal efficacy and political interest. Yet, they only explain parts of the disparities in external efficacy, political trust, and electoral participation.



Feeling discriminated against influences the orientations of people with disabilities in diverse ways. It increases their internal efficacy and political interest, lending support to the idea that a positive group identity combined with feelings of resentment can provide citizens with a sense of agency and the motivation to change their situation (Anspach 1979; Mattila and Papageorgiou 2017). At the same time, feelings of discrimination further decrease the external efficacy and turnout of people with disabilities, although these effects are partly due to lower resource levels. Meanwhile, its negative effect on political trust remains quite strong after controlling for resources. Crucially, even people with disabilities who do not feel discriminated against have lower levels of external efficacy and turnout than people without disabilities. They also vote at lower rates, which cannot be explained by political interest and partisanship. We need further research to explore what explains the persisting disability gaps.

One factor which was discussed in detail but not empirically examined, not least due to a lack of data, is the descriptive representation of people with disabilities in politics. Theories and evidence suggest that the presence of underrepresented social groups at the elite level can have powerful impacts on the attitudes and participation of their members (e.g., Mansbridge 1999; Phillips 1995; Atkeson 2003; Banducci et al. 2004; Bobo and Gilliam 1990). Such effects are argued to be partly due to citizens' perceptions that their interests are better represented by politicians who are 'like them'. Indeed, the substantive representation of the concerns of citizens with disabilities is another potentially important factor explaining the orientation gaps. As Guldvik et al. (2013, pp. 79–80) argue,

Disabled people comprise a diverse group with a variety of experiences and histories. They do not necessarily have common interests, but because of common experiences they may have interests that are opposed to those that the majority of non-disabled people may hold.

Several studies support this, suggesting that people with disabilities care more strongly about disability rights and health care, among other issues (Gastil 2000; Mattila et al. 2017; Schur and Adya 2013). If these issues are not salient in parties' and candidates' agendas, this 'issue public' (Converse 1964) might feel indifferent towards election outcomes, find it difficult to decide how to vote, and therefore abstain (Henderson 2014; Krosnick 1990; Mattila et al. 2017: 91; Reher 2014).

Macro-level factors of this kind might also explain some of the cross-national differences in the disability gaps that were shown but whose investigation was beyond the scope of this study. Furthermore, various institutional factors, including voter facilitation instruments such as postal voting and accessible polling stations and ballot papers, might increase not only turnout but also efficacy and political trust (Opokua et al. 2016). Although Wass et al. (2017) did not find that they increased turnout among voters with disabilities, Schur and Adya (2013) and Miller and Powell (2016) found positive relationships between disability and mail voting. Public services and benefits might also increase feelings of political empowerment and engagement, although this likely depends on whether they are designed to help



people gain independence and participate fully in society or function as welfare schemes.

Research on the topic should also be further developed in terms of depth—by exploring differences between impairment types (cf., Schur and Adya 2013)—and breadth—by looking beyond Europe and North America. Finally, within-individual analysis over time using panel data has the potential to further approach the causal identification of the effects of disability. This will illuminate the direction of influence between disability and resources and help account for variables that might influence both the likelihood of having a disability and political orientations.

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