



How the Welfare-State Regime Shapes the Gap in Subjective Well-Being Between People With and Without Disabilities

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Abstract This paper focuses on disability, an under-researched area of inequality, and subjective well-being. According to social production function theory, people with a disability do not have the same opportunities as people without disabilities to obtain resources, instrumental goals, and ultimately subjective well-being. Social participation and employment seem to be crucial mechanisms behind such disparities. The social system of a country (macro level) also shapes the gap in subjective well-being between both groups. The main objective of this paper is to analyse the gap in subjective well-being between people with and without disabilities. How is this gap linked to social participation and labour market integration, and how does the welfare-state regime shape the gap in subjective well-being between people with and without disabilities? The core of this research are multilevel analyses of cumulative European Social Survey data from 31 European countries. The results reveal that people with disabilities show significantly lower subjective well-being than people without disabilities. Welfare-state regimes have an effect on this gap, with social-democratic (and family-oriented) Nordic countries performing best in providing equal living conditions for people with and without disabilities.

Keywords Social policy · Inclusion · Wellbeing · Inequalities · Multilevel analysis

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Wie Wohlfahrtsstaatsregimes den Unterschied im subjektiven Wohlbefinden zwischen Menschen mit und ohne Behinderungen prägen

Zusammenfassung Der vorliegende Beitrag nimmt Behinderung, eine wenig beleuchtete Ungleichheitsachse, und subjektives Wohlbefinden in den Blick. Aufbauend auf die Theorie der sozialen Produktionsfunktionen wird der allgemeinen Annahme gefolgt, dass Menschen mit Behinderungen nicht die gleichen Möglichkeiten wie Menschen ohne Behinderungen haben, Ressourcen, instrumentelle Ziele und letztlich Wohlbefinden zu erlangen. Soziale Teilhabe und Arbeitsmarktintegration scheinen bedeutsame Mechanismen hinter den angesprochenen Disparitäten zu sein. Das Sozialsystem eines Landes auf der Makroebene prägt ebenso Unterschiede im subjektiven Wohlbefinden zwischen Gruppen. Die Hauptziele dieses Beitrags bestehen entsprechend darin, den Unterschied im subjektiven Wohlbefinden zwischen Menschen mit und ohne Behinderungen zu analysieren. Inwieweit lässt sich dieser Unterschied durch Unterschiede in sozialer Teilhabe und Arbeitsmarktintegration erklären, und wie prägt das Wohlfahrtsstaatsregime den Unterschied in subjektivem Wohlbefinden zwischen Menschen mit und ohne Behinderungen? Im Kern der Forschung stehen Mehrebenenanalysen von kumulierten Daten des European Social Survey aus 31 europäischen Ländern. Die Ergebnisse weisen darauf hin, dass Menschen mit Behinderungen ein signifikant geringeres subjektives Wohlbefinden zeigen als Menschen ohne Behinderungen. Wohlfahrtsstaatsregimes moderieren diesen Unterschied, wobei die Performanz der skandinavischen sozialdemokratischen (und familienorientierten) Länder hinsichtlich der Bereitstellung gleicher Lebensbedingungen für Menschen mit und ohne Behinderungen offenbar im Vergleich am stärksten erscheint.

Schlüsselwörter Sozialpolitik · Inklusion · Wohlbefinden · Ungleichheiten · Mehrebenenanalyse

1 Introduction

In Europe and beyond, people with disabilities are disabled in the literal meaning of the word in their daily activities, and ultimately also in their ability to achieve well-being, which—according to social production function theory (Lindenberg and Frey 1993; Ormel et al. 1999)—is the highest goal that humans can achieve via first-order instrumental goals including stimulation (doing interesting and enjoyable things), comfort (fulfilment of material needs), status (prestige), behavioural confirmation (compliance of attitudes and behaviours with one's own norms and expectations, as well as the norms and expectations of others) and affection (emotional relationships with others, networks). People with disabilities do not have the same access to these goals, particularly to the labour market, to stimulating activities or to comfort. They are less integrated in the education system, are more often unemployed and show a higher risk of falling into poverty (Academic Network of European Disability Experts/ANED 2018; Bültmann and Siegrist 2020). The extent to which people with disabilities are disabled may vary by country, as countries provide different

living conditions and opportunity structures in order to produce subjective well-being (SWB). The general assumption behind this research, therefore, is that the welfare state regime may alter the relationship between disability status and subjective well-being.

In the sociology of inequalities, disability deserves more scientific attention, although there is already a profound body of sociological enquiries into disability (e.g. Thomas 2007). In his classic definition of meritocracy, Young (1958) considers ability one of the legitimate key criteria for an unequal distribution of goods and positions, but (dis)ability appears to be an axis of inequality from a sociological inequality perspective. This applies in particular for definitions of inequality that emphasise inequalities as systematic variations in educational attainment, status attainment and other aspects of life along certain axes of inequality (Hadjar and Gross 2016) or conditions that systematically limit the life chances of certain groups and individuals (Kreckel 2004). A group of American sociologists (Mauldin et al. 2020) recently—in the context of the COVID-19 pandemic—suggested that disability should be included more often in sociological enquiries, treating it as an axis of inequality, similar to other axes of inequality, such as social origin, immigrant background and gender.

This study follows up on two previous studies. Van Campen and van Santvoort (2013) indicated country differences in the gap between people with and without disabilities, and identified a research gap with regard to the question of what is behind the cross-cultural variation. Penner (2012) studied the systematic influence of welfare states based on the 2008 data of the International Social Survey Programme. Using a sample of 14 countries and Ordinary Least Squares (OLS) regression, she revealed significantly smaller gaps in happiness between people with and without disabilities in social democratic countries. In this study, we attempt to contribute to filling this research gap by employing a multilevel approach to systematically studying cross-cultural variation, based on a larger country sample that is sufficient to carry out complex multilevel analyses. The main objective is to analyse inequalities along the axis of disability in SWB, and how these are shaped by the institutional setting of the welfare-state regime. An additional novelty of the research involves considering participation in social activities and in the labour market as social mechanisms behind the gap in subjective well-being. This research is highly relevant not only with regard to the outlined individual consequences of disability but also vis-à-vis the United Nations' (UN) Convention on the Rights of Persons with Disabilities (United Nations 2006), which requires the promotion, protection and provision of the full and equal enjoyment of all human rights and fundamental freedoms for this group.

“Disability” is a highly debated term in public and scientific discourses, and requires a clear definition as a condition. Disability definitions range from biological accounts, linking disability only to biological impairments, to social science accounts linking disability to social exclusion and oppression mechanisms (Barnes 2012; Wasserman et al. 2016). We employ an empirical definition of our main database—the European Social Survey (ESS)—which is based on the perceptions of people who feel hampered in their daily activities by disability, illness, infirmity or mental problems. This shares some of the scope of the World Health Organi-

sation's (WHO 2001) definition of disability, which emphasises three dimensions: impairment in a person's body and/or mental structure or function, limitations to activity and restrictions to participation in normal daily activities. It also includes what the United Nations defines as persons with disabilities relating to "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" (United Nations 2006, p. 1). Although this includes both congenital and acquired disorders, as well as longstanding illness, the common denominator is that the condition is perceived as hampering everyday life and, thus, as a disability. The WHO and UN definitions seem to focus on biological interpretations, but the perception of being hampered also includes the social dimension of disability, for example, that certain conditions may exclude people with impairments and even increase their perception of being disabled.

The comparative perspective adopted in this study, based on data from 31 European countries, will allow (to a certain extent) the identification of countries that care more or less for the integration of this group into their societies. At the macro level, we focus on welfare-state regimes as an important country characteristic that determines equal living conditions for all—balancing inequality, and including inequalities that are caused by social structures according to the social model of disability (Barnes 2012).

In the next sections, we theorise the link between disability and SWB (2) and how macro factors affect this association (3). The data and operationalisations employed in the analyses are outlined in the method section (4). Results are presented in the following section (5), including country-specific descriptive results regarding the SWB gap between people with and without disabilities, and complex multilevel models. In a final section (6), we summarise and discuss the findings and draw conclusions.

2 Disability and Subjective Well-Being

2.1 Concepts and Drivers of Subjective Well-Being

Theorising how the link between disability and SWB varies between welfare-state regimes, SWB appears to be a major goal of human actions as outlined in social production function theory (Lindenberg and Frey 1993; Ormel et al. 1999). Although this conceptualization relates to the hedonic approach to SWB with the attainment of pleasure and the absence of pain as major goals (Feldman 2010), there is another SWB concept arising from the eudaimonic approach that "focuses on meaning and self-realization and defines well-being in terms of the degree to which a person is fully functioning" (Ryan and Deci 2001, p. 141). We define SWB in terms of a perceived need for satisfaction as the (temporal) condition of being more pleased than displeased about specific issues and/or life as a whole. More precisely, SWB relates to an evaluation of individual lives—particularly objective well-being in terms of objective physical and economic conditions (Gasper 2005)—regarding a specific moment or longer periods, which comprises both a cognitive component based on

a (rational) consideration of past, present and future conditions, and an affective component based on emotions and feelings (Diener 1994; Diener et al. 1999).

Well-analysed individual-level drivers of SWB include age, income, status, employment, living in a committed relationship, a network of friends and relatives (social capital), and health (e.g. Frey and Stutzer 2005; Hadjar and Backes 2013; Jones and Wass 2012; Ervasti and Venetoklis 2010). Macro level factors that have an effect on SWB at the individual level include economic prosperity, inequality and the welfare-state regime (Bonini 2008; Böhnke 2008; Hadjar and Backes 2013; Samuel and Hadjar 2016).

2.2 Disability and Subjective Well-Being

Health is often studied as a factor that depends on SWB—as higher SWB levels are consistent with a less stressful life and fewer mental and physical health problems (Cross et al. 2018)—for this study, conceptual approaches and research that treats SWB as an outcome variable are of importance.

According to the social production function theory (Lindenberg and Frey 1993; Ormel et al. 1999), disability hampers the production of goods needed to achieve first-order instrumental goals and the super goal of SWB. The most obvious disadvantages that disabled people face relate to pain, tiredness and physical limitations. This not only means a lack of comfort but also affects all other first-order instrumental goals such as affection, status, stimulation and behavioural confirmation. Disability can mean fewer personal contacts, reduced prospects in the labour market (or even exclusion), limitations regarding stimulating activities (like visiting the theatre) and, less obviously, a lesser chance of achieving the things one expects from oneself in terms of behavioural confirmation.

Furthermore, applying the integration concept defined by Esser (2000), low levels of SWB among people with disabilities may relate to a lack of integration and participation, similar to people with an immigrant background (Hadjar and Backes 2013). People with disabilities may face limitations relating to the ability to acquire the knowledge and skills to interact successfully within society (acculturation/socialisation); to attain a position in the economic system of that society, which is linked to capital resources (placement); to form relationships and networks (interaction); to fully identify with a social system and, most importantly, to feel a part of that system (identification). The conceptual social production function (SPF) framework has not been applied to disability before, but the similar capability concept described by Nussbaum (2006) explicitly addresses quality of life and disability. According to this concept, a “good life” and an apparently high subjective well-being would require the fulfilment of certain capabilities such as a normal life span, bodily health, bodily integrity, senses, imagination and thought, emotions, affiliation (including relationships, integration and equality), and control over one’s environment. Reducing an SWB gap between people with and without disabilities would mean compensating for certain disadvantages in the first group regarding these capabilities, which are closely linked to aspects of limited accessibility in many areas of life (e.g. mobility).

2.3 The Roles of Labour Market Integration and Social Participation

The implicit core of the concepts outlined above (SPF, Ormel et al. 1999; integration, Esser 2000; capability approach, Nussbaum 2006) is the question of participation in all areas of society. Paid work in terms of labour market integration and social activities in terms of social participation are key to achieving certain goals, such as social approval (prestige, acknowledgement), affection (social networks, emotional ties), stimulation (interesting and fulfilling activities) or comfort related to economic resources, which are needed to finally achieve subjective well-being. People with disabilities face limitations regarding both forms of participation. The same argument is also voiced by Edwards and Imrie (2008), who emphasise the importance of community inclusion, economic participation and social integration as major drivers of SWB, and people with disabilities may be disabled in acquiring these functions owing to social, economic and medical problems. People with a disability may be more likely to be hampered in participating socially in their environment, and may suffer limitations in the labour market, as indicated by lower employment rates for disabled people (Scharle and Csillag 2016).

These conceptual arguments are backed by empirical evidence. Van Campen und van Santvoort (2013) show for European countries, on the basis of ESS data, that people being hampered by disability exhibit a lower SWB than people without disabilities. According to this study, a key mechanism relates to social resources (e.g., social relationships) rather than to the degree of disability or socio-economic position, although presumably the former and the latter may be strongly linked. The connection between disability and health has been empirically demonstrated by Foubert et al. (2014), who show, with data from the World Health Survey that controls for individual level determinants and macro level determinants (such as the welfare-state regime), that self-rated health is lower among people with disabilities. Another study by Foubert et al. (2017), based on the European Quality of Life Survey, indicates that economic and social participation play an important role, as the negative link between disability and SWB appears to be stronger for unemployed people and those who do not engage in voluntary work.

The impact of societal conditions is dealt with in the following section, but we postulate the following hypotheses regarding the individual level:

- H 1* People with disabilities show a lower SWB.
- H 2* The gap in SWB between people with and people without disabilities is a result of the lower employment and lower participation in social activities by people with disabilities.

3 Welfare-State Regimes and the Gap in Subjective Well-Being Between People With and Without Disabilities

The degree of disability is not only an individual phenomenon but it also depends on higher-level factors. Societal conditions in terms of context define limitations

for people with disabilities on an individual level (Jones and Wass 2012). A study by van Campen and van Santvoort (2013), based on ESS data, revealed that the gap in SWB between people with disabilities and people without disabilities varies between European countries, and that the gap between both groups is smallest in northern countries and largest in eastern European countries. Although these studies provide some indication of country differences, we systematically focus on welfare-state regimes to study macro–micro connections. Our main argument regarding the role of the welfare-state regime as a macro-level factor is that the welfare-state regimes differ in guaranteeing equal living conditions to all people. This may also apply to differences in living conditions between people with and people without disabilities, as welfare-state regimes may also be characterised by different accessibility levels. Furthermore, social participation is a major aim of social policies (Huster 2018). Welfare-state regimes may also differ in their provisions for labour market integration and social participation, as social policies are also aimed at combating unemployment, and may contribute (although not explicitly) to the cohesion of society and (social) participation opportunities (Ellison 2006).

As the dominant argument regarding differences between welfare-state regimes regarding people with disabilities from an inequality perspective relates to the question of how a welfare-state regime deals with stratification, and in particular, whether in a welfare-state regime the aim is to reduce inequalities, we will structure our arguments and the classification of systems following the approach by Esping-Andersen (1990) and its later modification (Esping-Andersen 1999) on the general foundation of the welfare state. There is an important debate relating to the issue of the adequacy of typologies vis-à-vis the metric or continuous characteristics, but we believe that such typologies are meaningful as they can be understood in terms of ideal-type observations in the sense of Max Weber (Ebbinghaus 2012, p. 2). Although welfare-state regimes are also subject to temporal change—for example with regard to the redesigning of labour market programmes (e.g. Halvorsen and Jensen 2004)—they tend to keep the ideal-type cores of their policies. Esping-Andersen's (1990, 1999) general concept of welfare-state regimes relates to the degree of decommodification (whether individuals can have an acceptable living standard even if they do not participate in the market), and the degree of social stratification (whether, and to what extent, the welfare-state regime fosters or reduces inequalities). Esping-Andersen (1990) started out from a typology including three distinctive welfare-state regime types—a liberal, social-democratic and conservative type—and he later (Esping-Andersen 1999) added a family-oriented type when responding to feminist criticism (in the neglect of family relations) and included (de)familialisation as another core theme for comparison. As post-socialist transition countries often follow mixed policies, and are thus characterised by structures that go beyond the mention of (ideal) welfare-state regime types, the category of post-socialist welfare-state regime has also been added (Deacon 1993; Blossfeld and Drobnič 2001).

We also discuss the situation of people with disabilities in the different welfare-state regime types. Disability and welfare-state regimes are linked, as shown by conceptual considerations and empirical studies (Maschke 2008; O'Brien 2015; Penner 2012; Tschanz and Staub 2017). Welfare is of high importance for the living conditions of people who experience disabilities (Tschanz and Staub 2017; Foubert

et al. 2014, 2017). People with disabilities may benefit from welfare policies, as these will secure their needs and guarantee equality for all societal groups, and accessibility for people with disabilities in particular, but welfare-state regimes can also decrease SWB by affecting a recipient's self-esteem. As Foubert et al. (2014) explain, giving people with disabilities a low-status label in order to identify them as being eligible for certain welfare provisions may contribute to low self-esteem, to self-stigmatisation and discrimination, and finally to a lower SWB. The meaning of being disabled and the extent to which citizens with disabilities are socially included or excluded is shaped by welfare-state regimes (O'Brien 2015). For example, labour market activation measures may worsen the situation of disabled people owing to labelling mechanisms (Alanko and Outinen 2016). The question of exclusion from the labour market is a major issue, as paid work is highly important for the living conditions of people with and without disabilities (Foubert et al. 2017). Penner (2012) in particular investigated the effect of welfare states on the gap in happiness between disabled and non-disabled people. Her main background assumption is that welfare-state regimes shape what disability means, and that the particular stigmatisation of people with disabilities leads to depression and low happiness. The related empirical study, based on a small country sample and only involving OLS regression (rather than a multilevel model), indicates a significantly smaller subjective well-being gap between people with and those without disabilities in social-democratic countries. In addition to the systematic association between welfare states and SWB gaps, Penner (2012) reveals differences within the welfare-state regime groups.

The following elaboration on different welfare-state regime types relates both to the concept by Esping-Andersen (1990) and to analyses that explicitly deal with disabilities and welfare (Maschke 2008; O'Brien 2015; Tschanz and Staub 2017). The three types of disability policy, differentiated by Maschke (2008), are derived from an analysis of data from the European Community Household Panel regarding the functions of disability policies and actual living conditions. The types include a compensatory type with policies directed at financial compensation for a lack of labour-force participation, a rehabilitation-oriented type with policies aimed at the regeneration of skills and abilities to re-integrate on the labour market, and a participatory type with policies aiming at equal participation. The four-cluster typology of Tschanz and Staub (2017), differentiating the cluster along the question of how favourable living conditions are for people with disabilities, is centred on an index based on survey results from a sample of disabled people regarding their perceptions about the degree to which they are discriminated against in their country, and the difficulties they face in accessing public transport, entering buildings and participating in political processes. It needs to be noted that the welfare-state regime typology does not overlap entirely with disabilities regime typologies such as that of Maschke (2008), or that of Tschanz and Staub (2017). Furthermore, disability regimes are also subject to temporal change and certain convergence tendencies. As Prinz (2003) concluded from their study of 11 European countries, after an expansion phase regarding the welfare regimes in general, and also regarding welfare for people with disabilities, including an increase in benefit amounts and the lowering of eligibility barriers during the second half of the twentieth century, many countries started reforms in the late 1980s to make their social welfare systems more

sustainable vis-à-vis demographic developments, and benefit policies became more restrictive again, with increased barriers and reduced benefits.

3.1 Description of Four Welfare-State Regime Types

The *social-democratic welfare-state regime type* (Nordic countries such as Sweden, Norway, Denmark, Finland) is characterised by the highest welfare expenditure and the strongest measures to reduce inequalities. The connection between welfare measures and labour market integration is weaker than in other regime types. Although measures apply to all groups of citizens, the social-democratic countries “promote an equality of the highest standards, not an equality of minimal needs” (Esping-Andersen 1990, p. 27). The main goal is to foster an individual’s maximal independence from the market and the family with regard to welfare. This also involves “relatively low eligibility barriers and generous cash benefits that are permanent or near-permanent” (O’Brien 2015, p. 2). In line with this, the (empirical) typology of Tschanz and Staub (2017) situates the social-democratic countries (together with Germany) in the cluster that is characterised by high civil rights scores, and is most in favour of the integration of disabled people into society—showing strong social protection and integration and a high disability social rights score. Situating the ideal-type disability regimes of Maschke (2008) within the framework of Esping-Andersen (1990), the social-democratic regime type does fit the participatory disability regime type best, as the policies in the Nordic countries promote equal opportunities, rights and duties and participation in society for people with and without disabilities (Fietkau 2017).

The market orientation of *conservative welfare-state regimes* (e.g. Austria, France, Germany, Luxembourg) is stronger than in social-democratic systems, but at the same time social security guaranteed by the state is still a major goal. As welfare measures relate to one’s position in the labour market and in the societal hierarchy—and family resources are important units for the estimation of the provision of welfare to the individual—inequality and positions of status are reproduced to a greater extent in these regimes. Conservative regimes are characterised by strong social stratification. Another feature is subsidiarity—welfare is only provided for an individual if family resources are exhausted. Disability benefits appear to be less generous (although more generous than in the liberal systems), and are more restrictive regarding regulations and eligibility criteria (O’Brien 2015). Within the framework of Maschke (2008), the rehabilitation-oriented disability regime type seems to be closest to the conservative welfare-state regime, with strong benefits integrated into the social security system and strong attempts to rehabilitate and re-integrate into the labour market (Fietkau 2017).

Liberal welfare states (e.g. UK, US, Switzerland¹) show a strong market orientation, and welfare expenditures, and thus decommodifying measures, are the lowest. Minimal welfare is only provided if welfare is really needed—if all resources (including family resources) are exhausted. Individuals who receive welfare from the state tend to be stigmatised. The state plays a minimal role in providing decent and

¹ Trampusch (2010) notes that the Swiss welfare system also includes conservative features.

equal living conditions, and individual risks are highest. Liberal systems provide only limited disability benefits. Programmes are more restrictive, with barriers to eligibility, and are characterised by shorter durations for the provision of benefits (O'Brien 2015). The liberal welfare-state regime type is closely connected to the compensatory disability regime type described by Maschke (2008), as it provides limited (compensatory) benefits for people with disabilities, but also lacks strong support for re-integration into the labour market and equal participation opportunities (Fietkau 2017).

Family-oriented welfare-state regimes (e.g. Greece, Portugal) follow the idea that “households must carry the principal responsibility for their members’ welfare” (Esping-Andersen 1999, p. 51). The family is the key unit of welfare, and the duty to provide financial welfare or care is assigned to the family. State or market institutions fill some of the functions of the family in other welfare-state regimes—such as providing financial welfare, childcare and care for the elderly—but families have to fulfil these functions in family-oriented systems. Inequality and stratification are pronounced, as clientelism and patronage are common (Ferrera 1996). O'Brien (2015) stresses that disability benefit schemes are less well developed and less generous.

The category of *post-socialist welfare states* (e.g. Estonia, Poland) relates to a very heterogeneous group of countries and policies, although there may be tendencies to converge towards the ideal type of Western welfare state (Deacon 1993). The Estonian system includes features of the social-democratic and liberal welfare-state regime types, but contemporary Hungary follows a more inequality-prone path, with stratification and the reproduction of social and ethnic inequality at its core. A common feature of post-socialist countries is transition experiences after the changes of power that lead to insecurities and widening gaps between rich and poor, and thus, high levels of social stratification (Böhnke 2008; Bonini 2008). Inglot (2008) characterises post-socialist welfare-state regimes as “emergency welfare state[s]” that are still under construction. The situation of people with disabilities is therefore often precarious in these countries for reasons that relate to former state-socialist rules and neoliberal developments after the transition, along with a stigmatisation of disability and a low level of organisations to support people with disabilities (Mladenov 2017). This is also backed by the cluster analysis by Tschanz and Staub (2017), who empirically assign the post-socialist countries (but also Belgium) to the least favourable cluster—with low social protection, low social integration and low civil rights scores.

Reflecting on these different welfare-state regime types and their general character regarding welfare provision and inequalities following the general concept of Esping-Andersen (1990), it would be reasonable to expect that the smallest difference in SWB between people with disabilities and people without such conditions would be found in social-democratic welfare-state type regimes, and that by comparison, inequality-prone post-socialist countries would be characterised by the largest gap in SWB. A similar assumption could be derived from Tschanz and Staub (2017), which indicates high civil rights scores for countries with social-democratic (Sweden, Denmark) or conservative welfare-state regimes (Germany, Luxembourg), and low scores for post-socialist countries (Slovakia, Hungary).

Based on the general assumption that the link between disability and SWB differs between different welfare-state regime types, we postulate the following hypothesis:

H 3 The SWB gap between people with and people without disabilities is smaller in social-democratic welfare states than in other welfare-state regime types.

As outlined, a major mechanism behind the welfare-state regime effect is the differential provision of equal opportunities in the different welfare-state regimes (Esping-Andersen 1990). This also links to the question of equal labour-market integration and equal social participation. Both are achieved via a high degree of accessibility, that is to say, a strong segment of workplaces that cater especially for people with disabilities, and policy measures that allow people to participate socially (e.g. in facilitating spatial mobility and communication). The labour market integration of people with disabilities may be driven not only by policy measures such as benefit-funded workplaces or disability benefit and pension schemes but also by the characteristics of labour markets, particularly a heterogeneity regarding skill demands (Maschke 2008). Parallel to the factors of labour market integration and social participation discussed regarding the individual level, we introduce two macro level factors that relate to the ratio between people with and without disabilities regarding labour market integration and social participation. Although the previous arguments implicitly suggest that welfare-state regimes might differ in both factors, we leave it to the empirical results to determine whether or not labour market integration and social participation are connected to welfare-state regimes, or if Hypotheses 5 and 6 are alternative/independent explanations.

H 4 The more equal the labour market integration between people with and without disabilities in a country, the smaller the SWB gap between people with and people without disabilities.

H 5 The more equal the social participation between people with and those without disabilities in a country, the smaller the SWB gap between people with and people without disabilities.

4 Methods

4.1 Data

The ESS is a suitable dataset for analysing the gap in SWB between people with disabilities and people without such conditions in different welfare-state regimes, but sufficient information regarding the variables of interest in this study is not available in all countries. To include a maximum number of cases at the individual and country level—and in order to reduce the small sample bias at the macro level as well as gaining a more precise estimate at both the individual and the macro level—we use a cumulative dataset consisting of eight ESS waves (2002–2016). We reduced our sample to people between the ages of 25 and 64, because workforce

participation is a major issue affecting SWB for people with disabilities, but the age reduction allows for a reduction of possible sample selection biases regarding very old people. As immigrants who were not born in the country where the data were collected are likely to have had a different socialisation experience (see Hadjar and Backes 2013), we controlled for these conditions. Although the initial data set comprised $N=243,854$ cases, missing values on the variables that were included in the complex models led to the exclusion of 26.4% of the sample (“listwise deletion”) so that our final models include 179,355 individual cases in 31 countries. Deleting all missing values potentially causes bias. However, a comparison of the initial and our reduced data set reveals no severe bias regarding all model variables. To reduce further bias, we employ the ESS design weight (for country-specific analyses) and a combination of the ESS design and the ESS population size weight for analyses of the multi-country data set. We also control for the major drivers of SWB, that are at the same time potential causes of bias, in the models.

4.2 Operationalizations

Table 1 lists all explanatory and control variables used in the different models, with their distributional characteristics. We present descriptive statistics for the groups of people with and without disabilities for the key concepts.

The dependent variable SWB is a mean score for the affective (happiness) and the cognitive dimension (life satisfaction). The former is measured in response to the question, “Taking all things together, how happy would you say you are?” The latter relates to the question, “All things considered, how satisfied are you with your life as a whole nowadays?” Both scales range from “0” for “extremely unhappy/dissatisfied” to “10” for “extremely happy/satisfied”. Cronbach’s α for this two-item scale is 0.83.

The key independent variable is disability. We created a binary variable employing the ESS item based on the question of whether the respondent is hampered by illness, disability, infirmity or mental problems in their daily activities. The response categories, “yes, a lot” and “yes, to some extent”, have been transferred into the “1” category of the binary variable, and the “no” category serves as a reference category only. The ESS data enable at least three groups to be distinguished, but we need to retain this dichotomy as the case number of the severely disabled people in the third category is low (below 5%), and, according to the methodological logics of comparison, different countries have varying perceptions of degrees of disability.

We analyse participation in the labour market (employment) and social participation as the major mechanisms behind the role of disability in SWB. Employment in terms of integration into the labour market was operationalized using the ESS questions asking whether respondents had been “in paid work” during the last seven days. The reference category relates to all other people who were not in paid employment. It is not possible to divide this group into more categories owing to small sample sizes. This simplified classification is also meaningful vis-à-vis the comparative method employed, because the countries differ with regard to unemployment and non-employment categories, as labour market measures for people with disabilities differ (e.g. “medical” or “disability leave” in Germany, or disability pension,

Table 1 Descriptive statistics of research and control variables

Variable	Operationalisation	Descriptives ^a		
		All <i>N</i> = 179,355	People with dis- abilities <i>N</i> = 38,471	People without disabilities <i>N</i> = 140,884
<i>Dependent variable</i>				
Subjective Well-Being	Two-item scale reflecting affectual and cognitive dimensions of SWB: happiness and life satisfaction, Min = 0, Max = 10			
	Mean	6.85	6.06	7.07
	(SD)	(1.99)	(2.24)	(1.86)
<i>Independent variables</i>				
Disability	Hampered in daily activities by illness/ disability/infirmity/mental problem (a lot, to some extent), binary	Proportion Disability = 22.3%		
Labour market integration	Paid work (last 7 days), binary			
	Proportion in paid work	74.1%	56.8%	79.1%
Social par- ticipation	Taking part in social activities, Min = 1, Max = 5			
	Mean	2.72	2.56	2.77
	(SD)	(0.90)	(0.98)	(0.87)
Status	ISEI; Min = 11, Max = 90			
	Mean	43.86	40.84	44.73
	(SD)	(18.93)	(18.30)	(19.02)
Educational level	Proportions			
	Up to compulsory education (ISCED 0–2)	18.0%	21.7%	16.9%
	Upper secondary education (ISCED 3)	38.0%	40.5%	37.3%
	Post-secondary/advanced vocational educa- tion (ISCED 4)	17.8%	18.6%	17.6%
	Higher education (Bachelor, Master’s de- gree or above) (ISCED 5–8)	26.2%	19.2%	28.2%
Immigrant status (first generation)	Country of birth			
	Proportions			
	Not born in country	9.2%	8.2%	9.4%
Age	Age in years, age group categories (25–64)			
	Proportions			
	Age 25–34	22.2%	12.2%	25.1%
	Age 35–44	26.3%	19.3%	28.4%
	Age 45–54	28.1%	31.6%	27.1%
	Age 55–64	23.4%	36.9%	19.4%
Gender	Conventional, binary			
	Proportions male	47.4%	43.1%	48.6%
Relationship status	Living with a partner, binary			
	Proportions	72.9%	69.8%	73.8%

Table 1 (Continued)

Variable	Operationalisation	Descriptives ^a		
		All	People with disabilities	People without disabilities
		<i>N</i> = 179,355	<i>N</i> = 38,471	<i>N</i> = 140,884
Period	ESS waves, year			
	Proportions			
	2002	6.2%		
	2004	6.4%		
	2006	11.3%		
	2008	13.4%		
	2010	16.7%		
	2012	17.7%		
	2014	11.6%		
	2016	16.7%		
Welfare-state regimes	Welfare-state regime, based on Esping-Andersen (1990, 1999) and Blossfeld et al. (2008)	Proportions (Level 1)		
	Social democratic: Denmark, Finland, Iceland, Norway, Sweden	Social democratic = 3.8%		
	Conservative: Austria, Belgium, France, Germany, Israel, Luxembourg, The Netherlands	Conservative = 37.0%		
	Family-oriented: Cyprus, Greece, Ireland, Italy, Portugal, Spain	Family oriented = 14.5%		
	Liberal: Switzerland, United Kingdom	Liberal = 8.3%		
	Postsocialist: Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Lithuania, Poland, Russia, Slovenia, Slovakia, Ukraine	Post-socialist = 36.4%		
Disability labour market integration index	Ratio between labour market integration of people with disabilities and without disabilities; using the binary employment variable (paid work, last 7 days), binary from the ESS data set (initial data set, <i>N</i> = 243,854 cases); country-specific scores, weighting: design weight	Ranging from 0.56 in Hungary and Bulgaria to 0.86 in Italy		
Disability social participation index	Ratio between social participation of people with disabilities and without disabilities; using the social participation variable (taking part in social activities) after dichotomisation from the ESS data set (initial data set, <i>N</i> = 243,854 cases); country-specific scores, weighting: design weight	Ranging from 0.65 in Croatia to 0.88 in Ukraine		

Data source: ESS 2002–2016, *N* = 179,355

ESS European Social Survey, *ISCED* International Standard Classification of Education, *ISEI* International Socio-Economic Index, *SD* standard deviation, *SWB* subjective well-being

^aWeighted (population size weight, design weight)

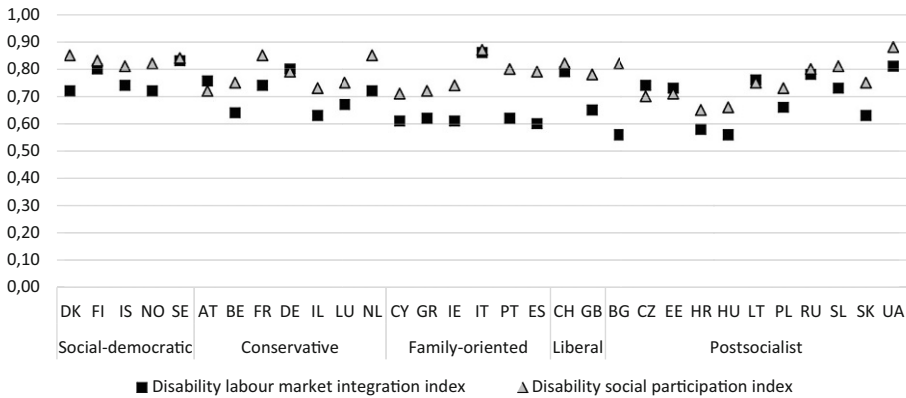


Fig. 1 Disability indices (ratio of people with and people without disabilities) by country. (Country-specific ratio between people with disabilities and people without disabilities. Data source: ESS 2002–2016; $N=243,854$; weight: design weight, no controls)

e.g. in Norway). The social participation variables relate to an interval-scaled ESS variable (rating scale, five steps). Respondents were asked about the extent to which they take part in social activities in comparison with others and indicated “much less than others” or “much more than others” in their responses.

The macro factors of welfare-state regimes relate to the typologies by Esping-Andersen (1990, 1999) and Blossfeld et al. (2008), including the following types of welfare state: social-democratic, conservative, family-oriented, liberal and post-socialist.

We introduce two indices—generated from the cumulated ESS data set—with regard to specific macro characteristics related to disability that may potentially explain differences between welfare-state regimes: the labour market integration index relates to the gap in employment (“paid work”) between people with disabilities and people without disabilities, and the social participation index relates to the gap in social participation between the two groups. The higher the values, the better integrated people with disabilities are than people without disabilities; that is to say, the smaller the gap in integration between the groups. Interestingly, both indices seem to correspond to each other in many countries (Fig. 1). The Nordic countries seem to be characterised by reasonably high integration scores, but Italy as a family-oriented country outperforms even these countries regarding equality in labour market integration and social participation between people with and those without disabilities.

Control variables on the individual level include well-studied drivers of SWB such as *occupational status*—measured through the International Socio-Economic Index (ISEI) by Ganzeboom et al. (1992); *education*—which, if the effect of status is modelled simultaneously, expresses the role of cognitive capabilities to satisfy one’s needs (Samuel and Hadjar 2016); and *gender*. We introduce age group dummies to account for the non-linear relationship of age with SWB. We also control for period effects, as we pool data from different ESS research waves, and so estimates may be driven by factors that were a characteristic of that particular time.

On the macro level, we introduce the country-specific SWB as a control. This factor relates both to economic prosperity (being strongly linked to GDP) and cultural aspects such as the societal climate in the perception of living conditions. For our analyses, we calculated a country-specific mean score for the cumulative ESS dataset used in our empirical study.

A brief inspection of the differences between people with and those without disabilities shows that people with disabilities clearly score lower regarding SWB, labour market integration and social participation, whereas other differences appear to be less pronounced.

4.3 Analytical Strategy

We employ multilevel models with individuals who reside within countries on the micro level and 31 countries that represent different welfare-state regime types on the macro level to analyse the hypotheses postulated in the conceptual sections. We estimate random intercept models using robust standard errors.

The null model indicates the amount of variance in SWB on Level 2 (country level), and Model 1 indicates the role of the disability condition in SWB, controlled only for a period to account for the cumulated data set. Our stepwise inclusion of variables—first at the macro level and for cross-level interactions, later at the individual level—is because our research question centres on societal factors in the first place. Accordingly, we evaluate cross-level interaction and thus the macro level effects of the welfare-state regime (Model 2) and disability indices (Model 3) separately, and simultaneously in Model 4, always controlling for the country-average of SWB to account for cultural differences and factors related to SWB such as economic prosperity. In a next step, we add the micro level effects of employment and participation in social activities to evaluate the role of these micro-level factors (Model 5) before evaluating the net effect of disability, net of all other macro and micro factors (Model 6).

5 Results

In a first step, we seek to evaluate the SWB levels of people with and without disabilities in the different countries (Fig. 2). SWB differs significantly in all countries according to the degree of disability, with people without disabilities showing higher SWB levels. Interestingly, the largest gaps—and the strongest inequalities and disadvantages for highly disabled people—were revealed for Bulgaria, Hungary, Lithuania and Poland as post-socialist countries, and the smallest gaps were revealed for the Nordic countries of Denmark, Finland and Norway, the conservative system of the Netherlands and for the family-oriented country of Italy.

However, Fig. 2 only allows for a (limited) visual inspection. Complex multilevel models controlling for major drivers of SWB at the individual and societal levels need to be estimated to create an adequate picture of the difference in SWB (Tab. 2).

Evaluating the null model (see table notes; Tab. 2) first reveals that some 31% of the variation in SWB relates to the country level and 69% to the individual level.

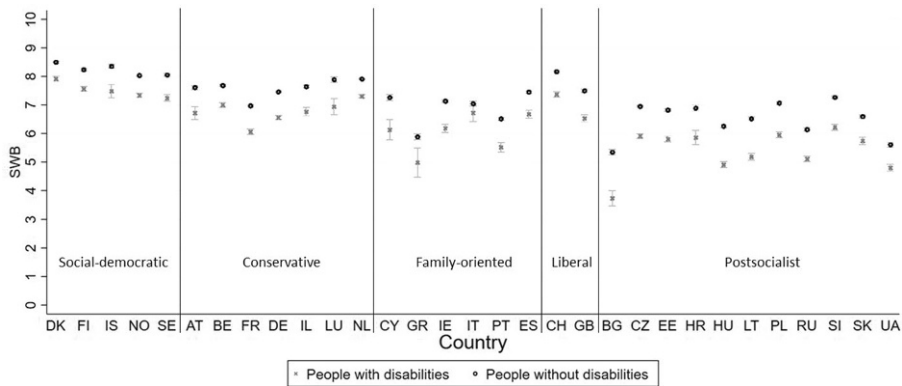


Fig. 2 Average SWB of people with and without disabilities by country. (Data source: ESS 2002–2016; $N=179,355$; weight: design weight, no controls)

Model 1 indicates a strong negative association between the disability condition and SWB. An evaluation of the association between welfare-state regime type and the disability–SWB link reveals significant negative cross-level interaction effects in Model 2, indicating that the negative distinction—and thus the gap—of people with disabilities in SWB is significantly more pronounced in conservative, liberal and post-socialist welfare states than in social-democratic countries. Model 3 evaluates the role of disability indices and shows a significant cross-level interaction effect between the disability social participation index and disability: the lower the gap in social participation between people with and without disabilities, the lower the gap in SWB between both groups. On the other hand, the gap in labour market integration does not seem to play a role in the SWB gap. In the complex Model 4, involving all macro variables, both the cross-level interactions of welfare-state regime type and disability and of the disability social participation index and disability appear to be quite persistent. This suggests that both factors might function rather independently of each other, and there is also a very marginal indication (slightly lower coefficients) that part of the variance of the welfare-state regime effects may relate to the gap in social participation. Model 5 additionally includes the two individual-level effects relating to participation in the labour force and in social activities. After including both variables, the effect of disability is reduced compared with the previous model (although not significantly, as the standard errors reveal), but remains significant. This indicates that the lower SWB of people with disabilities is only partly linked to their lower participation in the labour market and in social activities. The strong negative link between disability and SWB persists in the complex Model 6, now controlling for individual-level factors such as education, social status, immigrant background, gender, whether one is living with a partner, and age, as well as for period. This also applies to the cross-level interactions between welfare-state regimes and disability. In Models 5 and 6, the cross-level interaction effect of the disability social participation index is no longer significant, which relates to the introduction of the participation variables at the micro level. As the welfare-state regime effects appear to be persistent, the background drivers of this link may go beyond labour

Table 2 Macro- and micro-level effects on SWB, multilevel models with random intercepts, robust standard errors

	Model 1 Disability only (micro)	Model 2 Welfare- state regimes (macro)	Model 3 Disability indices (macro)	Model 4 Welfare-state regimes + disability indices (macro)	Model 5 Welfare-state regimes + disability indices (macro) + micro level fac- tors	Model 6 Welfare-state regimes + disability indices (macro) + micro level fac- tors + micro controls
Fixed effects						
Macro level effects						
<i>Welfare-state regime [Ref: social-democratic]</i>						
Conservative	–	0.01 (0.07)	–	0.12 [†] (0.06)	0.17* (0.07)	0.18** (0.07)
Liberal	–	–0.02 (0.06)	–	0.03 (0.04)	0.09* (0.04)	0.13** (0.04)
Family-oriented	–	–0.24* (0.11)	–	–0.11 (0.08)	0.00 (0.08)	0.12 (0.08)
Post-socialist	–	0.08 (0.10)	–	–0.30* (0.13)	0.40** (0.14)	0.42** (0.14)
<i>Disability labour market integra- tion index</i>	–	–	0.18 (0.41)	–0.38 (0.26)	–0.42 (0.28)	–0.20 (0.24)
<i>Disability social participation index</i>	–	–	0.31 (0.55)	1.36* (0.55)	1.03 [†] (0.58)	0.75 (0.54)
Macro level control						
<i>Average SWB (country)</i>	–	–0.94*** (0.06)	0.92*** (0.03)	1.01*** (0.05)	1.02*** (0.06)	1.00** (0.06)
Cross-level interactions						
<i>Welfare state regime * disability [Ref: Social democratic * Disability]</i>						
Conservative * Disability	–	–0.18** (0.06)	–	–0.15* (0.08)	–0.17* (0.08)	–0.18* (0.08)
Liberal * Disability	–	–0.24*** (0.05)	–	–0.13* (0.06)	–0.16** (0.06)	–0.19** (0.07)
Family-oriented * Disability	–	0.01 (0.12)	–	0.11 (0.11)	0.07 (0.12)	0.00 (0.11)
Post-socialist * Disability	–	–0.31*** (0.06)	–	–0.20** (0.06)	–0.25*** (0.06)	–0.29*** (0.06)

Table 2 (Continued)

	Model 1 Disability only (micro)	Model 2 Welfare- state regimes (macro)	Model 3 Disability indices (macro)	Model 4 Welfare-state regimes + disability indices (macro)	Model 5 Welfare-state regimes + disability indices (macro) + micro level fac- tors	Model 6 Welfare-state regimes + disability indices (macro) + micro level fac- tors + micro controls
<i>Disability labour market integra- tion index * Disability</i>	–	–	0.21 (0.46)	0.55 (0.56)	0.31 (0.59)	0.17 (0.58)
<i>Disability social participation index * Disability</i>	–	–	1.90** (0.65)	1.30* (0.59)	0.80 (0.65)	0.64 (0.67)
Individual level						
<i>Disability</i>	–0.92*** (0.03)	–0.71*** (0.04)	–2.59*** (0.45)	–2.21*** (0.40)	–1.45*** (0.40)	–1.11** (0.41)
<i>Labour market integration</i>	–	–	–	–	0.36*** (0.05)	0.32*** (0.05)
<i>Social participation</i>	–	–	–	–	0.34*** (0.03)	0.31*** (0.03)
Individual level controls						
<i>Education [Ref. compulsory education]</i>						
Upper secondary education	–	–	–	–	–	0.01 (0.04)
Post-secondary/Advanced voca- tional education	–	–	–	–	–	0.15** (0.05)
Higher education (Bachelor's, Master's degree or above)	–	–	–	–	–	0.19** (0.07)
<i>Status (ISEI)</i>	–	–	–	–	–	0.01*** (0.00)
<i>Immigrant status [Ref. Born in country]</i>	–	–	–	–	–	–0.08*** (0.02)
Born abroad	–	–	–	–	–	–
<i>Gender [Ref. Female]</i>	–	–	–	–	–	–0.13*** (0.02)
Male	–	–	–	–	–	–

Table 2 (Continued)

	Model 1 Disability only (micro)	Model 2 Welfare- state regimes (macro)	Model 3 Disability indices (macro)	Model 4 Welfare-state regimes + disability indices (macro)	Model 5 Welfare-state regimes + disability indices (macro) + micro level fac- tors	Model 6 Welfare-state regimes + disability indices (macro) + micro level fac- tors + micro controls
<i>Relationship status [Ref. not living with a partner]</i>						
Living with a partner	–	–	–	–	–	0.78*** (0.07)
<i>Age [Ref. 25–34]</i>						
Age, 35–44 years	–	–	–	–	–	–0.29*** (0.02)
Age, 45–54 years	–	–	–	–	–	–0.39*** (0.04)
Age, 55–64 years	–	–	–	–	–	–0.16** (0.06)
Period control						
ESS round/year	0.04*** (0.01)	0.04*** (0.01)	0.04*** (0.01)	0.04*** (0.01)	0.04*** (0.01)	0.04*** (0.01)
Constant	–73.37*** (20.23)	–78.82*** (20.24)	–79.47*** (20.06)	–80.32*** (20.25)	–78.93*** (19.40)	–77.27*** (17.59)
Random effects						
SD constant (Country)	0.83 (0.09)	0.12 (0.02)	0.15 (0.04)	0.10 (0.02)	0.11 (0.02)	0.11 (0.02)
SD residual (Individual level)	1.82 (0.04)	1.82 (0.04)	1.82 (0.04)	1.82 (0.04)	1.78 (0.05)	1.73 (0.05)
Wald Chi-Squared	903.84	26,491.23	4123.76	913,944.55	71,568.26	99,854.78
P > Chi-Squared	0.00	0.00	0.00	0.00	0.00	0.00
Log pseudolikelihood LL	–378,188.84	–378,082.71	–378,092.76	–378,048.82	–374,532.94	–369,316.97

Null model: variance components – SD constant (country level) = 0.82 (0.09); SD residual (individual level) = 1.86 (0.05)

Data source: ESS 2002–2018; *N* individuals = 179,355, *N* countries = 31; weight: dweight (design weight) * pweight (population size weight)

SWB subjective well-being, *ISEI* International Socio-Economic Index, *ESS* European Social Survey, *SD* standard deviation, *LL* log likelihood

Significance levels: *** $p \leq 0.001$, ** $p \leq 0.01$, * $p \leq 0.05$; † $p \leq 0.10$

market integration and social participation, or factors connected to the other macro- and micro-level factors in the models.

6 Conclusions

The main objective of this study was to evaluate how welfare-state regimes shape inequalities in SWB related to disability. Before discussing our findings, we will briefly evaluate our hypotheses regarding the micro level and the macro level in light of the results. In the micro level hypotheses, the results supported Hypothesis 1, that people with disabilities show a lower SWB. As unemployment negatively influenced SWB and social participation positively influenced SWB, Hypothesis 2 received only some support. The gap in SWB between people with and people without disabilities is only partly linked to lower employment and a lower participation in social activities, in that although the effect size of disability decreased, the effect remained significant after the inclusion of unemployment and social participation. In contrast to our macro-level assumption that the gap between people with and people without disabilities in social-democratic welfare states would be smaller than in other welfare-state regime types (Hypothesis 3), our results indicate that the family-oriented welfare-state regimes do not differ significantly from the Nordic social-democratic countries. Both regime types seem to be beneficial for the SWB of people with disabilities. Thus, this hypothesis only received some support. However, welfare-state regime types appear to play a role in the country differences regarding the links between disability and SWB. Hypothesis 4 was not supported in our results, as the ratio of labour market integration between people with and without disabilities (disability labour market integration index) did not show any significant association with the SWB gap between the two groups. However, there is some indication that lower differences in social participation between people with and without disabilities (disability social participation index) relate to a lower SWB gap between the two groups, as postulated in Hypothesis 5.

These results illustrate the importance of disability as an axis of inequality that deserves more attention. Welfare-state provisions—even in the often criticised categorical operationalisation by Esping-Andersen (1990, 1999)—seem to not only affect inequalities with regard to class, status and migration background, but also with regard to disability. Welfare-state categories may still make sense (Ebbinghaus 2012) and can function as heuristic tools (Samuel and Hadjar 2016), even with regard to “new” issues; however, although the social-democratic Nordic welfare states performed well in the reduction of inequalities and the provision of reasonable life conditions for all, these countries did not appear to be distinct from the family-oriented welfare states with regard to inequalities along the axis of disability. Presumably, integration into societal structures and the family in family-oriented systems seems to function in a similar manner to the integration mechanisms in the social-democratic countries that relate to strong welfare-state provisions, communities and families. Families seem to be equivalent to the strong welfare-state policies in the Nordic countries, and produce some level of inclusion for people with disabilities. This argument is somehow backed by the significant effect of the disability

social participation index regarding the disability SWB link. Family-oriented countries, particularly Italy, show a relatively low gap between the social participation of people with and without disabilities.

The finding that social participation and labour market integration on the micro level are associated with an increased SWB, and partly account for the disability effect, indicates the importance of these issues for well-being. However, considering how macro-level factors link to the SWB gap between people with and without disabilities, only equality in social participation, and not equality in labour market integration in a country seemed to play a role in the SWB gap, and the effects of the welfare-state regime were not strongly affected by these factors. This may be because welfare measures and labour market integration are not necessarily closely linked (as in the case of Nordic countries, Esping-Andersen 1990). Furthermore, people labelled as “paid workers” may also work in precarious job conditions, and people with disabilities make up a certain share of the “working poor” (Zagorsky 1999). However, welfare-state regimes not only differ with regard to inequalities but also with regard to how they provide (and encourage) opportunities for participation, as they also show distinct levels of social capital (Kääriäinen and Lehtonen 2006). Inclusion into society and its sub-fields, rather than segregation and exclusion, as also indicated by other disability researchers (see Oliver and Barnes 2010), seems to be the best way to increase SWB for people with disabilities. As Powell (2003) emphasises with regard to the education system, having definitions that differ between countries matters. “Labelled and categorical boundaries drawn around dis/ability” (Powell 2003, p. 57) in terms of exclusion alter individual trajectories and produce inequality. Early inclusion measures may therefore also be beneficial, as—owing to path dependency—these will affect inclusion and well-being throughout one’s life.

The main limitations of the research relate to the measurement of disability, which only relates to the respondent’s own perceptions of whether or not they feel hampered in their daily activities. Such subjective perceptions may vary between countries and cultures. Differentiating only between two groups—people perceiving themselves as greatly or to some extent disabled versus people who do not perceive themselves to have any disability—appears to be somewhat simplified (see reasons provided in the Methods section); however, the advantage of comparing these two groups is that this is a rather conservative test of our hypotheses, as the gaps in SWB between people without disabilities and the category of severely disabled people would be stronger than shown in our analysis, where both medium and severely disabled people are collapsed into one category. Disability and ill health are also subsumed under one category here, whereas disability research always strives to disentangle the two conditions (Oliver and Barnes 2010). As the employed measures disabling conditions, however, including physical and mental health problems, it may make sense heuristically to subsume these aspects under the term “disability”. In general, future research needs to differentiate between different forms of disability, as conditions and how they are perceived may differ between groups (e.g. people suffering from mental problems, visually impaired people, or people who are suffering from paraplegia). Another methodological limitation relates to the number of countries at the macro level. Although the number is sufficient for multilevel analyses that require a minimum of 20 countries, the relatively small number of

countries ($N=31$) does not allow for the coverage of more factors or controls at the macro level. Bias due to omitted variables may thus affect some of the findings.

Welfare-state regime types do matter with regard to disparities in SWB along the axis of disability. The Nordic social-democratic model is the most promising in providing equal living conditions for people with and without disabilities, as required under the United Nations convention (2006). We can also conclude from our results that the role of welfare-state regimes is not explained by better social participation or better labour market integration of people with disabilities, but goes far beyond. Future research involving more detailed analyses of welfare measures, and based on new categorisations such as the disability regime classification developed by Tschanz and Staub (2017), may provide even deeper insights.

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