



# The role of empathy in support for inclusive education

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## Abstract

According to UNESCO, educating all children in the same classrooms, with adequate support and taking into consideration their different needs, provides benefits for everyone. However, public opinion about inclusive education is rarely uniform and often unsupportive. While public support for placing pupils with special needs in regular classes is crucial for both legislation and the implementation of effective inclusive practices, knowledge about the predictors of this support is limited. Additionally, we know relatively little about how support for inclusion varies depending on the type of disadvantage. In this study, we examine the role of different empathy-related processes (perspective taking, empathic concern, personal distress) in public support for the inclusion of six different groups involving pupils disadvantaged by their social background, physical disabilities, and intellectual disabilities. Using data from a Czech nationally representative survey (2022), and multilevel ordinal logistic models, we found differences in the effects of empathy on the support for inclusion depending on the type of pupils' disadvantage. While perspective taking is not associated with support for any group, and personal distress lowers the support for inclusion, individuals with higher levels of empathic concern are more supportive of inclusion regardless of the type of disadvantage. Furthermore, we found that extended contact with a disadvantaged child increases support for inclusion.

**Keywords** Inclusive education · Empathy · Prejudice · Czech Republic

## 1 Introduction

The importance of inclusive education has been declared by various policy documents (e.g., UNESCO, 2000, 2015) and widely endorsed by scholarly work (e.g., Ainscow et al., 2006; Florian, 2014). Inclusive education means

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educating *all* pupils together, with a particular emphasis on the groups at risk of marginalization or underachievement (Ainscow, 2020). Understanding attitudes towards placing children from such groups in regular classrooms is of central importance, because without the support of the public as well as the key stakeholders in the education process, inclusion cannot be effective and successful (Krischler et al., 2019). The benefits of inclusive education include economic and equity considerations on a societal level, improved educational outcomes for special education needs (SEN) or at risk pupils, typically developing pupils' increased understanding and appreciation of diversity, as well as friendship and mutual respect among the different groups of pupils (Ainscow, 2020; Van Mieghem et al., 2020). Therefore, it is vital to understand how support for inclusive education is formed and how it can be improved. Although the roles of socio-demographic characteristics (e.g., gender, SES, level of education), previous experience with inclusive education, and personal contact with disadvantaged children have already been addressed in the literature, the role of empathy, a key factor in the literature on interethnic and interracial prejudice, remains largely unexplored. While a few studies have investigated the connection between empathy and support for inclusive education among teachers (Makoelle, 2019; Navarro-Mateu et al., 2019), this connection has not been explored among members of the general public, whose support is also essential for implementing inclusive education policies (Papastephanou, 2019).

In this article, we address this gap by examining if people with higher levels of empathy are more likely to support placing pupils with various disadvantages in regular classes. Empathy makes people concerned about others' well-being and happiness (Eisenberg & Fabes, 1990; Hoffman, 2000) and has a positive effect on interpersonal and intergroup relations (e.g. Batson et al., 1997; Beelmann & Heinemann, 2014; Miklikowska, 2018; Pettigrew & Tropp, 2008; Stephan & Finlay, 1999; Vescio et al., 2003).

This study aims to contribute to existing research in several ways. First, previous studies on inclusive education mostly focus either on general attitudes towards inclusion or on specific SEN groups (e.g., autism spectrum disorder), and rarely compare support for the inclusion of multiple groups with different disadvantages simultaneously. Yet, differentiating between disadvantages is important because we need to better understand if support for inclusion is the same for all disadvantaged groups or varies depending on the type of disadvantage. Second, the literature on empathy investigates its role in attitudes towards outgroups, but we know little about the importance of empathy in support for social inclusion. Third, research on inclusive education is scarce in the formerly socialist Eastern and Central European countries (especially in English), as underlined by a recent review (Stepaniuk, 2019). Therefore, using a Czech nationally representative sample of 981 adult respondents and a series of multilevel ordinal logit models, we examine if empathy is associated with support for placing children (1) with physical disabilities, (2) with mild intellectual disabilities, (3) with specific learning, attention and behavioural disorders, (4) from socially disadvantaged backgrounds, (5) children of Roma origin, and (6) with a mother tongue different from Czech in regular classrooms.

## 1.1 Attitudes towards inclusive education

While, there is no clear consensus on its precise definition and multiple interpretations exist simultaneously (Ainscow, 2020; Göransson & Nilholm, 2014; Krischler et al., 2019), there is a growing theoretical consensus that inclusive education means educating *all* pupils together, with a particular emphasis on the groups at risk of marginalization or underachievement (Ainscow, 2020). It is generally argued that inclusive education is more than just the placement of pupils with special needs in regular classrooms, as it also involves the development of inclusive teaching and organizational practices that ensure the participation and achievement of all children (Ainscow, 2020; Ainscow et al., 2006). However, when researchers measure support for inclusive education, they generally focus on the placement aspect as the other definitions involve positive phrasing (e.g., meeting the needs of all pupils), *which would make it much more difficult for respondents to disagree with* (Nilholm & Göransson, 2017, pp. 445–446).

It has long been understood that inclusive education can only be effective if it is supported by different stakeholders in the educational process (including teachers, parents and pupils) as well as by the broader community (Krischler et al., 2019). Reviews of the extant literature found that parents generally hold positive attitudes towards inclusive education<sup>1</sup> (de Boer et al., 2010; Van Mieghem et al., 2020), while the attitudes of peers tend to be neutral or negative (Bates et al., 2015; de Boer, Pijl, & Minnaert, 2012, 2012). With regard to teachers, an earlier review found a tendency for negative or neutral attitudes (de Boer et al., 2011), while more recent meta-analyses show positive overall attitudes (Guillemot et al., 2022; van Steen & Wilson, 2020). Unfortunately, less is known about support for inclusive education among members of the general public. The few studies that have addressed this issue found that respondents were divided over, and on average rather negative towards, the inclusion of children with intellectual disabilities (Burge et al., 2008; Jury et al., 2021; Pace et al., 2010), while they were more positive towards the inclusion of pupils with motor and specific learning disabilities (Jury et al., 2021).

Importantly, support for inclusion shows variation depending on the type of pupil disadvantage, past experience with inclusive education, and the socio-demographic characteristics of respondents. Studies have consistently shown that parents of typically-developing (TD) children show higher support for the inclusion of children with physical disabilities than for children with intellectual disabilities and in particular children with behavioural problems (e.g., Albuquerque et al., 2019; de Boer & Munde, 2015; de Boer et al., 2010; Paseka & Schwab, 2020). Studies that directly compare the attitudes of parents of SEN and TD children show that parents with SEN children tend to be more supportive of

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<sup>1</sup> Research on attitudes towards inclusive education mostly focuses on the placement aspect and not on attitudes towards the organizational and teaching practices that would ensure meeting the educational needs of all students. Therefore, in our review of the literature, when we write about attitudes towards inclusive education, we refer to support for the *placement* of children with special education needs and/or at risk of marginalization into mainstream classrooms.

inclusive education (e.g., de Boer, Pijl, & Minnaert, 2012, 2012; Hu et al., 2018; Stoiber et al., 1998; Su et al., 2020). Available research on the general public, as we have described above, also shows lower support for the inclusion of children with intellectual disabilities in mainstream classes than in the case of motor and specific learning disabilities (Jury et al., 2021).

Experience with inclusive education (e.g., having SEN classmates in the class of the TD child) has been positively associated with support among parents (e.g., Balboni & Pedrabissi, 2000; de Boer & Munde, 2015; de Boer et al., 2010; Van Mieghem et al., 2020) and teachers (de Boer et al., 2011) alike. Among members of the general public, Jury et al. (2021) found a positive association between knowing someone with a disability and general support for the inclusive education of different groups with a disability. However, when respondents were asked whether mainstream or special education would be better for these groups, they found this association not to be statistically significant.

With regards to socio-demographic characteristics, most studies have found that higher socio-economic status (SES) and level of education are positive predictors of support for inclusion (e.g., de Boer et al., 2010; Stoiber et al., 1998; Su et al., 2020; Van Mieghem et al., 2020), while some studies did not find such associations (e.g., de Boer & Munde, 2015; de Boer, Pijl, & Minnaert, 2012, 2012; Kalyva et al., 2007) or only found it in the case of some subgroups (e.g., Leyser & Kirk, 2004). The findings related to gender are inconsistent, with some studies finding that mothers were more supportive of inclusive education than fathers (Balboni & Pedrabissi, 2000; de Boer & Munde, 2015; de Boer, Pijl, & Minnaert, 2012, 2012), while others found fathers to be more supportive than mothers (Kalyva et al., 2007; Lui et al., 2015). Most studies did not find a relationship between age and support for inclusive education (de Boer et al., 2010), although a few studies found some evidence that younger parents had more positive attitudes (e.g., de Boer & Munde, 2015). Additionally, a comparative study found a similar association in the case of teachers, but not among parents (e.g., Balboni & Pedrabissi, 2000).

While the literature on inclusive education predominantly investigates attitudes towards the inclusion of children with different types of disabilities in regular classrooms, the broader definition of inclusive education (i.e., meeting the educational needs of all pupils), implies that special attention also needs to be paid to other groups at risk of marginalization or exclusion, such as ethnic minorities and socially disadvantaged pupils, among others. Although direct comparisons of attitudes towards people with disabilities and other socially disadvantaged or marginalized groups are scarce and not related to education (see e.g., Kudrnáč, 2017), support for inclusive education varies depending on the type of disability (e.g., de Boer & Munde, 2015; Jury et al., 2021; Paseka & Schwab, 2020). Similarly, the social psychological literature on attitudes towards outgroups suggests that people hold different attitudes depending on the type of outgroup (e.g., Kudrnáč, 2017). Therefore, we expect that support for the inclusive education of different groups of disadvantaged children will also vary depending on the type of disadvantage (e.g., different types of disability, social disadvantage, ethnic or linguistic minority status).

## 1.2 Empathy and attitudes towards outgroups

While pupil characteristics, experience with inclusive education, and socio-demographic characteristics of respondents have already been investigated in the literature, the role of empathy in support for inclusive education remains largely unexplored. However, empathy has been extensively investigated in the social psychological literature and has been demonstrated to be an important factor in outgroup attitudes, in particular in relation to interethnic and interracial prejudice. The following paragraphs briefly review this social-psychological literature.

Empathy is a complex phenomenon including cognitive and affective processes (Davis, 1983a). The cognitive process involves taking another person's perspective either by imagining how one would think or feel in another person's situation, or by imagining how the other person thinks or feels. On the other hand, the affective process of empathy refers to the emotional response – feeling as the other person feels (personal distress) or feeling for the other person (empathic concern) (Batson & Ahmad, 2009; Van der Graaff et al., 2020).

The cognitive and the affective processes of empathy have been shown to be related to each other, and both play a crucial role in social development and behavioural outcomes such as prosocial behaviour (e.g., Eisenberg et al., 2010; Jolliffe & Farrington, 2006; Van der Graaff et al., 2018, 2020). The affective process is based on vicarious experience of others' feelings which may result in empathic concern, personal distress or both (Habashi et al., 2016). While empathic concern is associated with feelings for others and is positively associated with helping others, personal distress is self-focused with a desire to avoid one's own anxiety and discomfort, but not others' distress. Personal distress may stem from holding stigmatized beliefs about others, and lead to discrimination against others based on their group membership (Masuda et al., 2009).

The relationship between empathy and intergroup attitudes has been widely investigated (for a review see for instance Dovidio et al., 2010). Empathy has been associated with decreased prejudice towards a variety of outgroups including ethnic and racial minorities (e.g., Bäckström & Björklund, 2007; Dovidio et al., 2004; Finlay & Stephan, 2000; Pedersen et al., 2004; Shih et al., 2009), sexual minorities (Burke et al., 2015), disabled people (Clare & Jeffery, 1972), or different stigmatized groups such as drug addicts, homeless people, or people with AIDS (Batson et al., 1997, 2002).

Perspective-taking has been associated with reduced prejudice and more positive intergroup attitudes (e.g., Burke et al., 2015; Dovidio et al., 2004; Vescio et al., 2003). The meta-analysis by Pettigrew and Tropp (2008) also shows that empathic concern and perspective-taking are effective mediators between intergroup contact and prejudice. A recent meta-analysis on the relationship between *mediated* intergroup contact (i.e., contact through different forms of media) and prejudice found similar results (Banas et al., 2020).

### 1.3 Inclusive education in the Czech Republic

Given the focus of this paper on the Czech Republic, it is essential to provide a review of the most important developments in inclusive education within the country. The Czech Republic committed itself to providing inclusive education following the fall of the socialist regime in 1989. However, the progress in implementing inclusive education was limited in the first few decades, with most progress resulting from pressure from external actors such as the European Union (Štech & Smetáčková, 2023). The amendment to the Education Act in 2016 represented a significant step towards the implementation of inclusive education and led to more pupils who had previously attended special schools being educated in regular classrooms (Štech & Smetáčková, 2023; Vaňurová & Pančocha, 2023).

Yet this legislative change was largely controversial as a significant portion of parents, teachers, and the general public (as well as political actors) were critical of these changes and/or their implementation. A recent review shows that teachers' attitudes had already been negative towards inclusive education before the legislative change and became even more negative subsequently (Vaňurová & Pančocha, 2023). There are multiple reasons for this opposition, including the 'Soviet-style' educational traditions of segregating people with disabilities (Stepaniuk, 2019), reserved attitudes towards people with disabilities in Czech society (Pančocha & Slepíčková, 2012), rather hostile attitudes towards ethnic Roma people (Kudrnáč, 2017; Kudrnáč & Hrubá, 2015), as well as insecurity about the conditions for the implementation of inclusive teaching and low levels of teacher self-efficacy in this changed environment (Vaňurová & Pančocha, 2023). Additionally, a preference for early tracking is widespread (Vaňurová & Pančocha, 2023) and the segregation of ethnic Roma pupils is still a common practice (Council of Europe, 2020). To illustrate the current state of support for inclusive education, Public Opinion Research Centre in their representative survey from September 2023 found that only 50% of Czech public 'definitely agree' or 'rather agree' with the 'inclusion of children with special needs in regular elementary schools' (Weikertová, 2023).

### 1.4 Current study

In this paper, we examine the relationship between empathy and support for inclusive education in the Czech Republic. Even though empathy is one of the key variables in the research on intergroup attitudes and its importance is often emphasized as a key component in inclusive teaching practices (Pearce et al., 2009), very few research studies have investigated its relationship with the support for inclusive education. One exception is the study by Navarro-Mateu et al. (2019) conducted among teachers, which found that emotional empathy was positively associated with support for inclusion, while the positive association with cognitive empathy depended on statistical modelling decisions.

In examining the relationship between empathy and support for inclusive education, we expect that higher levels of perspective taking and empathic concern

will be related to more inclusive attitudes, and higher levels of personal distress will be related to less supportive attitudes towards inclusion (H1). Furthermore, we hypothesize that the effects of empathy measures on support for inclusion will vary depending on the type of pupils' disadvantage (H2). Additionally, based on the literature on prejudice (e.g., Paluck et al., 2019; Pettigrew & Tropp, 2006) and in line with the Extended Contact theory (for a review see Zhou et al., 2019), we expect that those who personally know someone with a disadvantaged child will be more willing to place their child in a classroom with disadvantaged children (H3). Further, since our dependent variable is ordinal, we can also investigate whether the number of children with a certain disadvantage in the classroom influences this support. Although the literature predominantly investigates the presence or absence of support for inclusion, we presume that the number of children with a certain disadvantage may also influence one's willingness to place their child in the classroom.

## 2 Data and methods

### 2.1 Data sample

In this article, we use data that were collected online (CAWI method) from respondents of the Czech National Panel from 8 June to 8 July 2022 by a professional research agency. The research sample consisted of 981 respondents (mean age 49.2 years), of which 474 were male (48.3%) and 507 female (51.7%). The distribution of the research sample by age groups, education levels, parenthood, and income, and the wording of the questions and responses can be found in the Appendix.

### 2.2 Measures

#### 2.2.1 Dependent variable

*Support for inclusion* Respondents were asked whether they would be willing to place their child in a classroom with (1) = no pupils with a disadvantage, (2) = 1–2 pupils with a disadvantage, (3) = 3–4 pupils with a disadvantage, or (4) = 5–6 pupils with a disadvantage. This question was asked in the case of six specific types of disadvantage: (1) Children with mild intellectual disabilities (INT), (2) Children with physical disabilities (PHYS), (3) Children from socially disadvantaged backgrounds (SOC), (4) Roma children (ROMA), (5) Children with a mother tongue different from Czech (LANG), and (6) Children with specific learning, attention and behavioural disorders (BEH). Answers for the six questions were pooled together into a general “support for inclusion” variable, which contains the four levels described above. We conducted multilevel analysis, where observations represent

the first level and individuals the second level (described in more details in the Plan of Analysis section below).

### 2.2.2 Independent variables

*Empathy* Davis (1983b, p. 113) defines empathy as the “reactions of one individual to the observed experiences of another.” In our analysis, we rely on the widely used Interpersonal Reactivity Index (IRI; Davis, 1983a) to measure empathy. The IRI is based on the idea that empathy comprises a collection of distinct yet interconnected constructs. It produces empathy scales focused on both cognition and emotion. The IRI consists of three dimensions – perspective taking, personal distress, and empathic concern. We use the shorter form of the three subscales from the IRI to measure empathy: perspective taking (PT) and personal distress (PD) subscales were calculated as the mean scores of five items, and empathic concern (EC) as a mean of four items (Cronbach’s alpha for PT=0.73; for PD=0.77; for EC=0.71) (for item wording see Table 2 in the Appendix). Respondents gave their answers on a 5-point Likert response scale (0 = *doesn’t describe me well at all* to 4 = *describes me well*).

*Extended contact* According to Contact theory, positive contact with outgroup members leads to more positive attitudes towards the group (Pettigrew & Tropp, 2006). Small to medium effects were also found for those who did not know an outgroup member personally but had knowledge of in-group members who had cross-group friends (Zhou et al., 2019). Similarly to Jury et al. (2021), we have included a variable capturing extended contact with disadvantaged children by asking respondents whether they personally knew someone who had a child with each specific type of disadvantage in question. Respondents were asked whether they knew (=1) or did not know (=0) a person that had a child with each type of disadvantage (mild intellectual disabilities, physical disabilities, different mother tongue, specific learning, attention and behavioural disorders, socially disadvantaged background, Roma ethnicity).

*Parenthood* Respondents were asked if they had any children and, if so, whether they were in the education system or not. This variable had three response options: 0 = has no children, 1 = has children but they are not in the education system, and 2 = has children in the education system. Having one’s own children provides an incentive to be more interested in education and a specific motivation to support or oppose inclusive education.

*Type of disadvantage* Due to the multilevel design of our analysis, we also included a categorical variable that captures the type of disadvantage in question. The variable includes the following categories: (1) children with mild intellectual disabilities (INT), (2) children with physical disabilities (PHYS), (3) children from socially disadvantaged backgrounds (SOC), (4) Roma children (ROMA), (5) children with a mother tongue different from Czech (LANG), and (6) children with specific learning, attention and behavioural disorders (BEH). We used INT as the reference category in our models.



### 2.2.3 Control variables

We also control for the highest reached education level (0 = lower than university education, 1 = university education), household income (1–4 from very low to very high), gender (1 = male, 2 = female), and age (quartiles: 1 = 18–35; 2 = 36–50; 3 = 51–65; 4 = 66+). Parents' level of education (Leyser & Kirk, 2004; Stoiber et al., 1998) and socio-economic status (Balboni & Pedrabissi, 2000) have been positively associated with support for inclusive education. However, Paseka and Schwab (2020) found that while higher levels of education and socio-economic status were positively associated with support for the inclusion of children with physical disabilities, in the case of learning disabilities the opposite effect was observable. The effect of gender on support for inclusive education has ambiguous results. While several studies found mothers to be more supportive (Balboni & Pedrabissi, 2000; de Boer & Munde, 2015), Kalyva et al. (2007) reported the fathers to be more supportive of inclusive education. Although most studies have not found significant effects of age on inclusive education (Balboni & Pedrabissi, 2000; Kalyva et al., 2007), de Boer and Munde (2015) found that younger parents were more positive towards inclusive education.

### 2.3 Plan of analysis

The main aim of this study is to examine the relationship between empathy and support for inclusion, captured as the willingness to place one's child in a classroom with children that have various types of disadvantages. In particular, we test (1) if empathy is related to support for inclusion, and (2) if the association between empathy and support for inclusion is moderated by the type of disadvantage. Therefore, we follow the procedure described by Sommet and Morselli (2017) and used in Jury et al. (2021) to run cross-level interactions between empathy and the type of disadvantage on the level of support for inclusion. We run two multilevel ordinal logit models, where observations are nested in individuals. More specifically, level 1 is the observation (i.e., support for the inclusion of children with a specific type of disadvantage) and level 2 is the individual.

## 3 Results

Starting with the descriptive statistics, Table 1 reports the distribution of the dependent variable by the six types of disadvantage. There is evident variation in the willingness to place one's own child in a classroom with children that are disadvantaged. Specifically, respondents were least willing for their child to share a classroom with Roma pupils. About 63% of respondents would allow their child to be placed in a classroom with one or more Roma children, 66% with children with mild intellectual disabilities, and 68% of respondents indicated that they would not mind if their child shared a classroom with one or more children with specific learning, attention, and behavioural disorders. On the other hand, respondents were most willing to

**Table 1** Distribution of the support for inclusion by the type of disadvantage

	0 pupils <i>n</i> (%)	1–2 pupils <i>n</i> (%)	3–4 pupils <i>n</i> (%)	5–6 pupils <i>n</i> (%)
INT	337 (34.3)	199 (20.3)	185 (18.9)	260 (26.5)
PHYS	172 (17.5)	186 (19.0)	213 (21.7)	410 (41.8)
SOC	178 (18.1)	144 (14.7)	211 (21.5)	448 (45.7)
ROMA	361 (36.8)	229 (23.3)	177 (18.0)	214 (21.9)
LANG	227 (23.1)	162 (16.5)	205 (20.9)	387 (39.5)
BEH	318 (32.4)	214 (21.8)	186 (19.0)	263 (26.8)

*N* = 981. Numbers refer to count and percentage of respondents agreeing (sum of "definitely yes" and "rather yes" options) with placing their child in a classroom with (1) no pupils with a disadvantage, (2) 1–2 pupils with a disadvantage, (3) = 3–4 with a disadvantage, or (4) = 5–6 pupils a disadvantage. INT: Children with mild intellectual disabilities; PHYS: Children with physical disabilities; SOC: Children from socially disadvantaged backgrounds; ROMA: Roma children; LANG: Children with a mother tongue different from Czech; BEH: Children with specific learning, attention, and behavioural disorders (Attention Deficit Disorder).

place their child in a classroom with one or more children with physical disabilities (83%) and children from socially disadvantaged backgrounds (82%).

Proceeding to our regression analysis, Table 2 summarizes the results of the multilevel ordinal regression models. Model 1 involves our variables of interest (empathy and extended contact) and the control variables, while Models 2 also contains the interaction terms between the type of disadvantage and each dimension of empathy. In Model 1, we can see that support for the inclusion of children with physical disabilities (OR = 3.57,  $p < .001$ ), socially disadvantaged backgrounds (OR = 4.45,  $p < .001$ ), and linguistic minorities (OR = 2.79,  $p < .001$ ) is significantly higher than support for the inclusion of children with mild intellectual disabilities. At the same time, support for the inclusion of ethnic Roma pupils in mainstream classrooms is statistically significantly lower (OR = 0.74,  $p < 0.01$ ) compared to children with mild intellectual disabilities. With regards to the three dimensions of empathy, empathic concern (EC) is positively associated with an (overall) support for inclusion (OR = 1.78,  $p < .001$ ), while the association with personal distress (PD) is negative (OR = 0.80,  $p < .05$ ). Perspective taking (PT) has no statistically significant association. Extended contact also has a significant positive association with support for inclusion (OR = 1.49,  $p < .05$ ), while having children is negatively associated with this support. With regards to the control variables, belonging to the oldest age group and having a worse financial situation is negatively related to support for inclusion. Additionally, the statistical analysis reveals no significant relationships between either gender or university education and support for inclusion.

In order to better illustrate the differences in the support for inclusion depending on the disadvantaged group, we provide a graphical presentation of the calculated probabilities of agreement with inclusion based on Model 1. Figure 1 shows the calculated probabilities of agreeing with putting one's child in a classroom with

**Table 2** Results of multilevel ordinal logistic regression ( $N = 981$ )

Variables	Model 1		Model 2	
Type of disadvantage (Ref. INT)				
PHYS	3.57***	(0.34)	3.55**	(1.38)
SOC	4.45***	(0.43)	2.49*	(0.98)
ROMA	0.74**	(0.07)	1.18	(0.46)
LANG	2.79***	(0.27)	1.40	(0.55)
BEH	1.07	(0.10)	0.96	(0.37)
Empathy				
Empathic concern	1.78***	(0.25)	1.81***	(0.32)
Perspective taking	1.11	(0.16)	0.97	(0.17)
Personal distress	0.80*	(0.09)	0.86	(0.12)
Extended contact (Ref. no contact)	1.49*	(0.27)	1.50*	(0.28)
Parenthood (Ref. no children)				
Children not in the education system	0.49**	(0.12)	0.49**	(0.12)
Children in the education system	0.59*	(0.14)	0.59*	(0.15)
Managing income (Ref. with great difficulty)				
With some difficulty	1.44	(0.33)	1.44	(0.33)
Quite easily	1.69*	(0.41)	1.70*	(0.41)
Very easily	1.94*	(0.54)	1.93*	(0.54)
University degree (Ref. lower education)	0.75	(0.15)	0.75	(0.15)
Age (Refs. 18–35)				
36–50	0.66	(0.17)	0.66	(0.17)
51–65	0.70	(0.18)	0.70	(0.18)
66+	0.54*	(0.15)	0.54*	(0.15)
Gender (ref. male)	1.17	(0.21)	1.18	(0.21)
Interactions				
PHYS*empathic concern			1.11	(0.18)
SOC*empathic concern			1.25	(0.20)
ROMA*empathic concern			0.71*	(0.11)
LANG*empathic concern			1.06	(0.17)
BEH*empathic concern			0.89	(0.14)
PHYS*perspective taking			1.09	(0.18)
SOC*perspective taking			1.08	(0.18)
ROMA*perspective taking			1.29	(0.21)
LANG*perspective taking			1.31	(0.22)
BEH*perspective taking			1.13	(0.18)
PHYS*personal distress			0.77*	(0.10)
SOC*personal distress			0.92	(0.12)
ROMA*personal distress			0.90	(0.11)
LANG*personal distress			0.96	(0.12)
BEH*personal distress			1.07	(0.13)
Observations	5,886		5,886	
Number of respondents	981		981	
Log-likelihood	–6580		–6566	

**Table 2** (continued)

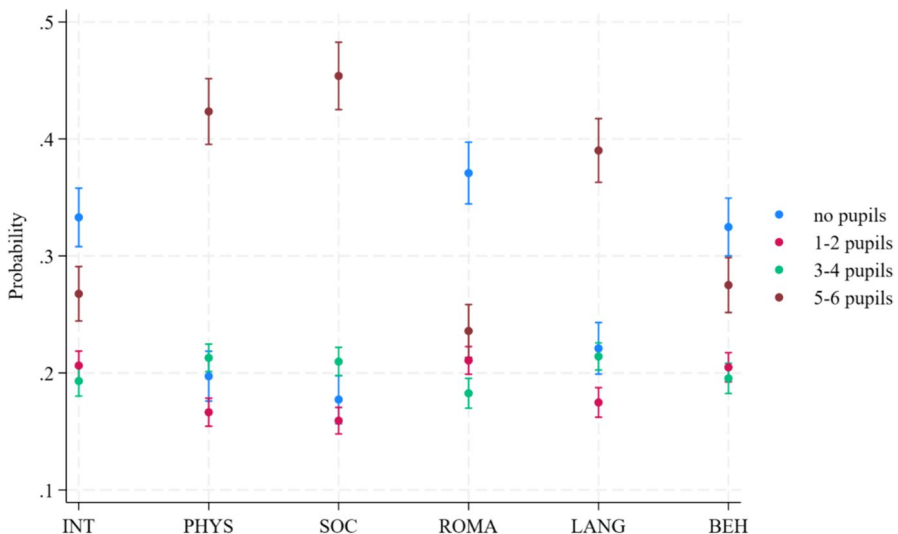
Standard errors are in parentheses

*Ref.* reference category, *INT* children with mild intellectual disabilities, *PHYS* children with physical disabilities, *SOC* children from socially disadvantaged backgrounds, *ROMA* Roma children, *LANG* children with a mother tongue different from Czech, *BEH* Children with specific learning, attention, and behavioural disorders (ADD)

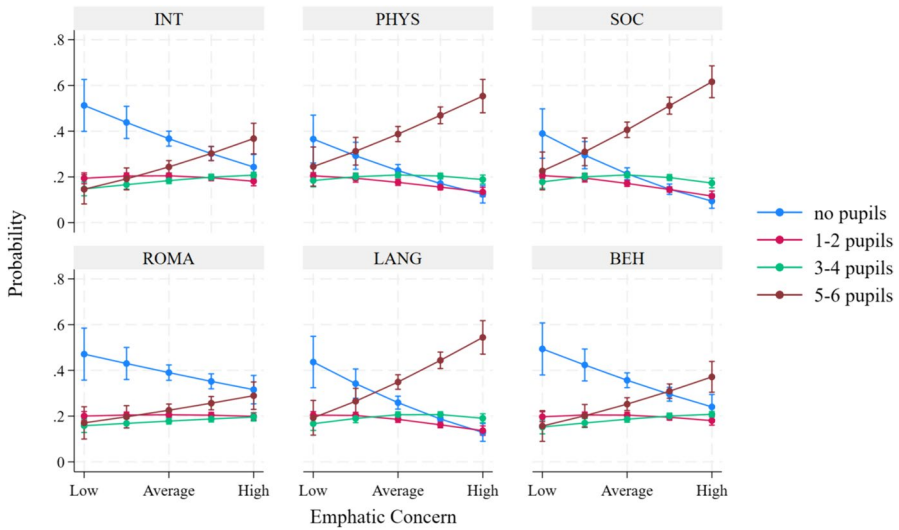
\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ 

“no pupils”, “1–2 pupils”, “3–4 pupils” and “5–6 pupils” with a disadvantage. The results indicate that the quantity of disadvantaged children in the classroom makes a difference to the extent of support for inclusion. The probability of agreement with inclusion is highest in the case of physically disabled and socially disadvantaged pupils and for those who have a mother tongue other than Czech. Conversely, pupils with behavioural problems, mild intellectual disability and Roma children have the highest probability to encounter resistance to their inclusion.

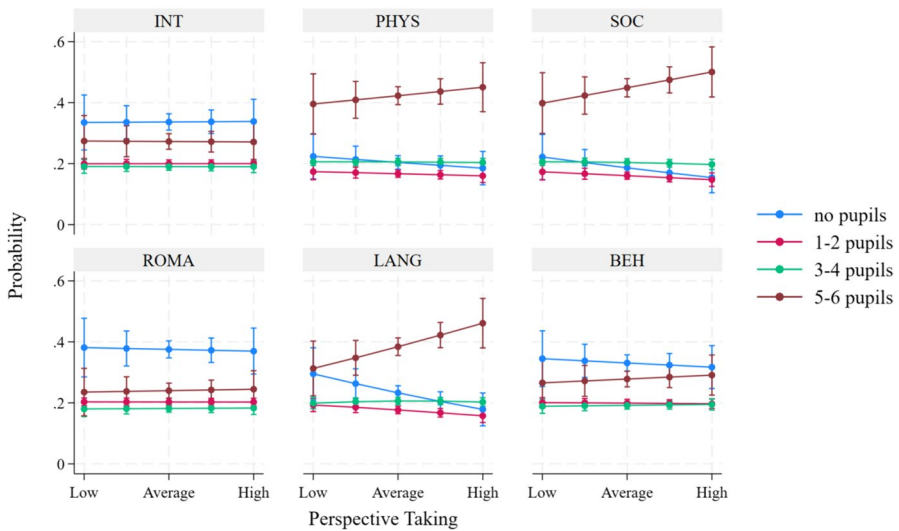
Moving to Model 2, we keep all the variables from Model 1 and add interaction terms between the empathy measures and indicators of the disadvantaged groups to examine if the association between the different dimensions of empathy and support for inclusion differs depending on the type of disadvantaged group in question. We use children with mild intellectual disabilities as the reference category. The results show two statistically significant moderation effects. First, the link between EC and support for inclusion is weaker for Roma pupils than for children with mild intellectual disabilities. Second, the association between PD and support for inclusion is weaker in the case of children with physical disabilities compared to children with mild intellectual disabilities. However, numerous scholars have suggested that relying solely on  $p$ -values of interaction terms in such models can be misleading and underscored the importance of visualizing the marginal effects of interaction terms within regression



**Figure 1** Support for inclusion depending on the type of disadvantage. Predicted values with 95% confidence intervals

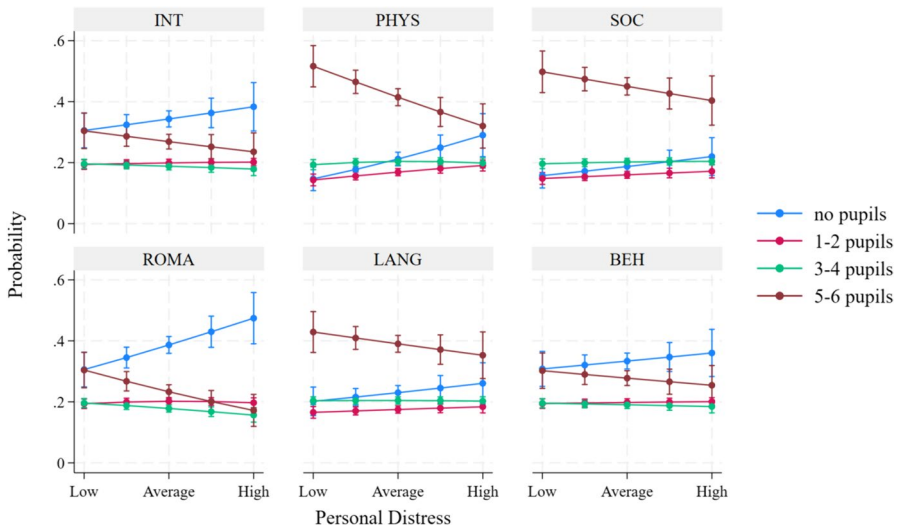


**Figure 2** Support for inclusion depending on the type of disadvantage and empathic concern. Predicted values with 95% confidence intervals.



**Figure 3** Support for inclusion depending on the type of disadvantage and perspective taking. Predicted values with 95% confidence intervals.

models to get a better understanding of coefficient strengths (e.g., Brambor et al., 2006). Therefore, we visualise predicted probabilities of agreeing with inclusion of “no pupils”, “1–2 pupils”, “3–4 pupils” and “5–6 pupils” depending on the type of disadvantage and the level of empathic concern (Fig. 2), perspective taking (Fig. 3), and personal distress (Fig. 4), based on Model 2.



**Figure 4** Support for inclusion depending on the type of disadvantage and personal distress. Predicted values with 95% confidence intervals.

Starting with Fig. 2, we see differences in the probability of respondents' agreement with putting children into a classroom with “no pupils” that are disadvantaged depending on the level of empathic concern. In other words, those with low levels of empathic concern are less likely to support inclusion. However, support for inclusion varies between groups when the level of empathic concern is high. Those who have high levels of empathic concern are more likely to support putting their children in classroom with “5–6 disadvantaged pupils” in the case of five out of the six groups. The one exception is support for the inclusion of 5-6 ethnic Roma children within the same classroom.

Moving to Fig. 3, we see that the lines are flat in the case of most groups. This means that there are no differences in support for inclusion based on the level of perspective taking, with the exception of children who have a mother tongue different from Czech. In this case, a higher level of perspective taking is related to higher support for the inclusion of “5–6 disadvantaged pupils” whose mother tongue is not Czech.

Depicting calculated probabilities of support for inclusion based on the level of personal distress, Fig. 4 shows that higher personal distress lowers the probability of agreement with the inclusion of “5–6 disadvantaged pupils” in the case of physically disabled children. A similar trend is observable in the case of socially disadvantaged children and children whose mother tongue is different from Czech, although in these cases the wide confidence intervals somewhat overlap. Additionally, higher personal distress is associated with higher support for not having *any* Roma classmates. The other lines are rather flat, which suggest that the level of personal distress is not related to other differences in support for inclusion.

In sum, the results suggest that both the type of disadvantage and the number of disadvantaged children affect support for inclusion. In the case of physically disabled and socially disadvantaged children, as well as pupils with a mother tongue other than Czech,

a higher level of empathic concern was associated with higher support for the inclusion of 5–6 disadvantaged children. On the other hand, in the case of Roma children, children with mild intellectual disability, and pupils with learning, attention, and behavioural disorders, the higher level of empathic concern was only associated with lower rejection of having *any* children from these groups in a shared classroom. Additionally, higher levels of personal distress were found to be negatively associated with support for the inclusion of any Roma children. Furthermore, higher levels of personal distress lowered the willingness to place one's child in a classroom with 5–6 children with physical disabilities, a socially disadvantaged background or a mother tongue other than Czech.

## 4 Discussion

Empirical studies on inclusive education predominantly focus on explaining support for the inclusion of children with disabilities and special needs in mainstream classrooms (e.g., Messiou, 2017; Nilholm & Göransson, 2017). However, the broader understanding of inclusive education (education for all pupils) suggests that the focus should also involve other groups of pupils at risk of marginalization or exclusion, including pupils from disadvantaged social backgrounds as well as ethnic and linguistic minorities. In this article, we drew on this broader understanding of inclusion and focused on support for inclusive education among members of the Czech general population in the case of six different types of disadvantaged children.

Our analysis showed that public support for inclusive education was associated with two dimensions of empathy (EC and PD) and varied depending on (1) the number of children from a disadvantaged group within one classroom, and (2) the type of disadvantage. We found that people were most reluctant to place their child in a classroom that included Roma children, children with mild intellectual disabilities, and children with specific learning, attention and behavioural disorders. On the other hand, people were more positive when it came to placing their child in a classroom alongside children from socially disadvantaged backgrounds, different mother tongues, and physical disabilities. The largest group among respondents (40–46%) were willing to place their child in a classroom with even 5–6 pupils from these three disadvantaged groups. At the same time, with regard to the other three disadvantaged pupil groups, the largest group among respondents (32–37%) were unwilling to place their child in a classroom with even one pupil from the given group. In general, most respondents tended to choose either the highest number of pupils (5–6 pupils) or no pupils from the given group. While this shows some polarization in opinions (support regardless of the number or no support at all), a sizable minority (36–41%) chose one of the two options in the middle (1–2 or 3–4 pupils). This supports our assumption that for many respondents the number of disadvantaged pupils also mattered: they accepted a few such students, but they were probably worried that too many children from such groups would negatively impact their child's educational progress.

These results are in line with literature that shows higher support for the inclusion of pupils with physical disabilities than for intellectual disabilities and behavioural problems (e.g., Albuquerque et al., 2019; Jury et al., 2021; Paseka & Schwab, 2020). At the

same time, the rejection of Roma children reflects long-lasting prejudice and antipathy towards members of this minority in Czech society (Kudrnáč, 2017; Kudrnáč & Hrubá, 2015) as well as the still present practice of their school segregation (Council of Europe, 2020). For instance, a report based on a representative sample of Czech society showed that Czechs perceived Roma as the least intelligent and most disruptive of the seven groups tested (Kudrnáč & Hrubá, 2015). Most parents believe that the primary goal of education is learning the subject material or improving skills while social learning only plays a complementary, secondary role. In 2020, 78% of Czechs believed that everyone can achieve an education according to their abilities and over 93% of Czechs considered the main factors that influence educational achievement to be individual qualities such as diligence, the pupil's own abilities and the desire for education (Tabery et al., 2021). In such settings, children with mild intellectual disabilities or stereotypically disruptive Roma children may be seen as intrinsically incompatible with the learning goals of typically-developing children, regardless of the sympathy or positive attitudes one otherwise has towards these groups. A plausible interpretation of our results suggests that respondents were primarily concerned with the provision of an effective learning environment and may consider the three more rejected groups as more disruptive to the learning process than the other groups.

In our first hypothesis, we hypothesized that support for inclusive education would be associated with all three dimensions of empathy. More specifically, we expected empathic concern and perspective taking to be positively associated with this support, and personal distress to be negatively associated. However, our analysis only partly supported these theoretical assumptions. While higher levels of empathic concern and lower levels of personal distress are related to higher levels of support for inclusion, perspective taking does not seem to be universally related to support for inclusion.

The second hypothesis that the effects of empathy on the support for inclusion will vary depending on the type of pupils' disadvantage has been partly confirmed. While the level of perspective taking does not show much difference when comparing support for the inclusion of various groups, our results also indicate that the effect of personal distress and empathic concern varies by target groups.

On the one hand, we found a positive association between empathic concern and support for inclusion in the case of five of the six groups observed. This is in line with previous literature suggesting that higher levels of empathy enable the perception of similarities between oneself and others (Aboud, 1988; Davis et al., 1996), and increase concern about others' well-being and happiness (Eisenberg & Fabes, 1990; Hoffman, 2000). However, this association was not clear in all cases. Although higher empathic concern was associated with an increased likelihood of supporting inclusion for five out of six groups, it did not correspond to increased support for the sixth group—Roma children. Instead, it only reduced the likelihood of refusing to have one's own child in a classroom with any Roma child. This suggests that deeply-rooted prejudice and the long-lasting practice of school segregation of this minority might have inhibited empathy towards this group.

Moving to perspective taking, the cognitive dimension of empathy, this dimension was not associated with support for inclusion for any of the observed groups. This largely contradicts the literature on intergroup attitudes, which consistently found this dimension to be associated with positive intergroup relations (e.g. Pedersen et al., 2004;



Shih et al., 2009). However, the only other study investigating the relationship between empathy and support for inclusive education also found that cognitive empathy was only associated with support in some of the models (Navarro-Mateu et al., 2019). It seems that taking another person's perspective may improve how one views members of the outgroup in general, but this may not be enough to support their inclusion in mainstream classrooms. In other words, individuals may only use some processes of empathy when thinking about social inclusion, and being concerned about the well-being of others (i.e., empathic concern) is necessary, while the ability to take the others' perspective is not related to support for inclusion.

Shifting the focus to the third measure of empathy, we observed a negative correlation between personal distress and support for inclusion, particularly in cases where support was sought for having any Roma children in the classroom. Additionally, higher levels of personal distress are related to decreased support for inclusion when the classroom was intended to accommodate 5-6 children with physical disabilities, those from socially disadvantaged backgrounds, or children with a mother tongue other than Czech. This negative association may be the result of stigmatized beliefs and the desire to avoid one's own discomfort by being in potential contact with these groups (Masuda et al., 2009). However, it is not clear why this effect is not statistically significant for the other groups.

Our third hypothesis, which posited that extended contact with members of disadvantaged groups would enhance support for their educational inclusion, was largely supported. This is in line with previous literature (Paluck et al., 2019; Pettigrew & Tropp, 2006; Zhou et al., 2019) suggesting that personal experience with other groups can strengthen the perception of similarities.

Additionally, our research yielded some important findings regarding the relationship between attitudes towards inclusion and the socio-demographic characteristics of respondents. Having children was negatively associated with support for inclusion. It seems that it is easier for respondents to support inclusive education so long as it remains a largely 'theoretical' question and does not involve one's own children and their school progress. Furthermore, our results show that respondents that are aged 65 and over are less supportive of inclusion. While individuals that are more well-off show higher levels of support, the level of education does not seem to play a role in support for inclusion.

While our study has several advantages, including a nationally representative sample, three empathy measures, and the differentiation of support for the inclusion of six distinct groups, we also acknowledge some limitations. First, the analyses are based on cross-sectional data thus; we cannot make any causal claims but only correlational ones. However, this is the case for most studies on this and similar topics. Second, this is a single-country study; it would be beneficial to have more international data to test whether country specifics interfere in the relationships. Third, the effects of empathy have to be interpreted with caution. Trait characteristics have a significant effect on the level of empathy; for instance, social dominance orientation has a stronger effect on empathy than the other way around (Sidanius et al., 2013). Furthermore, intergroup relations frequently have a long and negative history (including contempt and conflict), which can limit perspective taking and the feeling of empathic concern (Batson & Ahmad, 2009). In our analysis, this may be the case especially when analysing attitudes towards Roma. Fourth, if the outgroup contains individuals with similar needs to the in-group, both empathy and the willingness to help can decrease (Batson & Ahmad, 2009). Taking all

these limitations into consideration, this study still has some important findings regarding the relationship between empathy and support for the inclusive education of a variety of disadvantaged groups.

Our analyses suggest that a higher sense of empathic concern, personal knowledge of someone who has a child with a disability, and the respondent's better financial situation increase the odds of a positive attitude towards inclusive education. Conversely, a higher sense of personal distress, being a parent, and being older decrease the odds of being willing to place one's child in a classroom with disadvantaged children.

## 5 Conclusion

This study shows that support for inclusive education varies depending on the type of disadvantaged groups and the number of these group members in the classroom. Furthermore, our results imply that creating extended contact with disadvantaged group members and enhancing empathic concern may be key for improving public support for inclusive education.

## Appendix

See Appendix Tables 3 and 4.

**Table 3** Distribution of the research sample by age groups, education levels, parenthood, and income

	<i>n</i>	%
<i>N</i>	981	100
Age groups		
18–35	245	25.0
36–50	242	24.7
51–65	268	27.3
66+	226	23.0
Education levels		
Lower than university education	778	79.3
University education	203	20.7
Parenthood		
No children	260	26.5
Children outside the education system	468	47.7
Children in the education system	253	25.8
Household income		
With great difficulty	200	20.4
With some difficulty	354	36.1
Quite easily	265	27.0
Very easily	162	16.5

**Table 4** Wording of questions

*Wording of questions*

**Empathy**

**Read each of the following statements and rate how well each of them describes you. Please check the box that corresponds to the number which applies to you for each item.**

1	2	3	4	5
Does not describe me well				Describes me well

- a) I often have tender, concerned feelings for people less fortunate than me. (EC)
- b) In emergency situations, I feel apprehensive and ill-at-ease. (PD)
- c) I try to look at everybody's side of a disagreement before I make a decision. (PT)
- d) When I see someone being taken advantage of, I feel kind of protective towards them. (EC)
- e) I sometimes feel helpless when I am in the middle of a very emotional situation. (PD)
- f) I sometimes try to understand my friends better by imagining how things look from their perspective. (PT)
- g) Being in a tense emotional situation scares me. (PD)
- h) I am often quite touched by things that I see happen. (EC)
- i) I believe that there are two sides to every question and try to look at them both. (PT)
- j) I would describe myself as a pretty soft-hearted person. (EC)
- k) I tend to lose control during emergencies. (PD)
- l) When I'm upset at someone, I usually try to 'put myself in his shoes' for a while. (PT)
- m) When I see someone who badly needs help in an emergency, I go to pieces. (PD)
- n) Before criticizing somebody, I try to imagine how I would feel if I were in their place. (PT)

**Income**

**How does your household manage with the overall monthly income?**

1	2	3	4	5	6	99
With great difficulty	With difficulty	With some difficulty	Quite easily	Easily	Very easily	<i>I don't know</i>

**Age**

**How old are you?**

- 18–29
- 30–39
- 40–49
- 50–59
- 60–69
- 70+

**Education**

**What is your highest level of education?**

- Primary
- Secondary, no diploma
- Secondary with "maturita" exam
- Tertiary

**Gender**

**Are you...?**

- Male
- Female

**Table 4** (continued)**Parenthood****How many of your children are...**

0	1	2	3 or more
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- a) in preschool age
- b) attend primary school
- c) attend secondary school
- d) study at university
- e) are not being educated anymore

**Extended contact****Do you personally know someone who has children that can be described as follows?**

0 No	1 Yes
------	-------

- a) With physical disabilities
- b) With mild intellectual disabilities
- c) With specific learning, attention and behavioural disorders (e.g. dyslexia, dysgrafia, Attention Deficit Disorder, Attention Deficit Hyperactivity Disorder)
- d) From socially disadvantaged background
- e) Roma children
- f) Children with a mother tongue different from Czech

**Support for inclusion**

**Would you enroll your child/children in a class where the following students would also attend? Please answer even if you do not have any children. (The average Czech class has approximately 20–23 students, meaning 1–2 children represent less than 10% of the students in the classroom.)**

1	2	3	4	99
Definitely yes	Rather yes	Rather no	Definitely no	<i>I don't know</i>

- a) 1–2 children with physical disabilities
- b) 1–2 children with mild intellectual disabilities
- c) 1–2 children with specific learning, attention and behavioural disorders (e.g., dyslexia, dysgrafia, Attention Deficit Disorder, Attention Deficit Hyperactivity Disorder)
- d) 1–2 children from socially disadvantaged background
- e) 1–2 children Roma children
- f) 1–2 children with a mother tongue different from Czech
- g) 3–4 children with physical disabilities
- h) 3–4 children with mild intellectual disabilities
- i) 3–4 children with specific learning, attention and behavioural disorders (e.g., dyslexia, dysgrafia, Attention Deficit Disorder, Attention Deficit Hyperactivity Disorder)
- j) 3–4 children from socially disadvantaged background
- k) 3–4 children Roma children
- l) 3–4 children with a mother tongue different from Czech
- m) 5–6 children with physical disabilities
- n) 5–6 children with mild intellectual disabilities
- o) 5–6 children with specific learning, attention and behavioural disorders (e.g., dyslexia, dysgrafia, Attention Deficit Disorder, Attention Deficit Hyperactivity Disorder)
- p) 5–6 children from socially disadvantaged background
- q) 5–6 children Roma children
- r) 5–6 children with a mother tongue different from Czech

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**Data availability** Data and syntax for the used models are available on OSF (<https://osf.io/eqf9w/>).

## Declarations

**Conflict of interest** The authors declare that there is no conflict of interest.

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