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What's in a name: The effect of category labels on teachers' beliefs

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Abstract

In this paper, we report an investigation of the possible influence on teachers' essentialist thinking and efficacy beliefs of category labels used to describe children's educational difficulties.

A 2x2x2 counterbalanced design was employed in which primary school teachers in Finland and the UK were exposed to vignettes that portrayed a child exhibiting difficulties in one of two domains: either behaviour or reading. Vignettes were presented in two versions. In one, the child was labelled as having either 'ADHD' or 'Dyslexia'; in the alternate condition no such label was ascribed, descriptions identical in all other respects. Participating teachers were presented with two vignettes, one from each domain and in each condition. Responses to measures of Efficacy and Essentialist beliefs were solicited.

Overall responses indicated that category labels evoked stronger essentialist beliefs but did not influence teachers' efficacy beliefs. Finnish teachers reported stronger essentialist and lower efficacy beliefs than their counterparts in the UK.

Key words: Labelling; Teachers' Efficacy; Essentialism; ADHD; Dyslexia

Introduction

This study was motivated by professional and theoretical questions about the relationship between category labels and teachers' beliefs (Foroni & Rothbart, 2011, 2013). We were concerned to discover whether labels that can signify a specific notional category of educational difficulty might affect teachers' beliefs. Thus, we studied the effects of category labels (such as 'Dyslexia' and 'ADHD') on teachers' beliefs about their ability to support children's development in the face of apparent difficulties. While medical, biological and genetic conditions may, along with social and organisational factors be significant considerations for the nature and scope of children's education, our concern was not with

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the underlying nature or cause of children's difficulties. Our purpose is simply to consider the possible effects of the way difficulties are described and perceived by teachers.

The classification of children's educational difficulties has received considerable attention (Florian et al., 2006; McLaughlin et al., 2006). Much of that research has concentrated on the bureaucratic functions of classification, notably in the UK where there is a legal requirement (that does not exist in Finland) that the special needs of children are categorised and labelled (DfE, 2015; Tomlinson, 2017). Less has been said about the impact on others (such as teachers) of the language used in the process of classifying children. With respect to this issue, earlier work has indicated that category labels might influence teachers' efficacy beliefs (Gibbs & Elliott, 2015; Klassen, Tze, Betts, & Gordon, 2011). Before providing more details of the rationale for the investigations reported here, we first provide a brief overview of the relevant features of labelling, essentialism and efficacy beliefs.

Labels and essentialism

In contrast to biologically distinct groups of a 'natural kind' (as discussed by Quine, 1977), social categories are vulnerable to the dynamics of group perceptions (Tajfel, Billig, Bundy, & Flament, 1971). Category labels none-the-less provide a necessary and convenient linguistic 'shorthand' for the transmission of cultural constructs about others (Cuttler & Ryckman, 2018; Rhodes, Leslie, & Tworek, 2012). It is, therefore, important to gain greater understanding of the value and impact of 'resources' such as labels. To do so, we need to consider what labelling entails.

While category labels may be 'resources that orient professionals' actions and decisions' (Grossen, Florez, & Lauvergeon, 2014, p. 17), there is also evidence of prejudicial effects (Cuttler & Ryckman, 2018; Rendon, 1984). Thus labels may encourage medicalised conceptions of children's difficulties (Ho, 2004; Mehan, 2014), that can adversely affect teachers' beliefs and behaviours (Gibbs & Elliott, 2015; Jordan & Stanovich, 2003; Ohan, Visser, Strain, & Allen, 2011).

A central premise of psychological essentialism is that based on the theories they may hold about others 'people act as if [they] … have essences or underlying natures that make them [what] they are' (Medin, 1989, p. 1476). Rothbart and Taylor (1992) suggested that essentialist thinking could affect how specific groups are perceived. A growing body of evidence attests to a relationship between essentialist beliefs and prejudicial intergroup behaviour (Haslam & Whelan, 2008; Prentice & Miller, 2007). Others have shown how essentialist thinking can endorse prejudicial stereotypes about members of outgroups (Bastian & Haslam, 2006; Link, Phelan, & Hatzenbuehler, 2014).

However, while we recognise that biological factors are implicated in many complex educational difficulties, it is important not to overlook the relationship between individuals and their environment. As Lopes (2012, p. 226) has said with regard to reading difficulties, for instance,

> *'In the end, it is perplexing that a teaching / learning issue became a biological or genetic issue, when in a real sense almost everything about it* [for teachers] *is cultural.'*

Thus, we hypothesised, essentialist thinking about children requiring specialised support, may stand in a causal relationship with teachers' beliefs about what is possible to do with those children (Jordan & Stanovich, 2003, 2004). Jordan and Stanovich (2003) argued that the beliefs held by some teachers about the innate characteristics of certain categorised groups of children render such children outside their professional responsibility.

Efficacy beliefs

As Bandura (1997 *et passim*) and others have indicated, efficacy beliefs (defined by Bandura (1997, p. 3) as the beliefs '*in one's capabilities to organize and execute the courses of action required to produce given attainments'* are domain / context specific. Thus, whilst a teacher might espouse efficacy with regard to helping children learn about history that does not necessarily mean that she will also espouse comparable efficacy with children's behaviour. For example, in a survey of teachers' attitudes toward inclusion, Finnish participants professed greater efficacy about collaboration with colleagues than they did about students' behaviour (Savolainen, Engelbrecht, Nel, & Malinen, 2012).

There is substantial evidence that the efficacy beliefs of teachers are positively linked to children's educational progress (Caprara, Barbaranelli, Steca, & Malone, 2006; Tschannen-Moran, Hoy, & Hoy, 1998). More pertinently, greater efficacy beliefs have been found to be predictive of teachers' positive attitudes toward the inclusion of children with additional needs (Malinen et al., 2013; Savolainen et al., 2012). To date, however, research into teachers' efficacy beliefs has tended to focus either on domain specific aspects of the curriculum or on the nature of the context. Gibbs and Elliott (2015) suggested less attention had been given to teachers' perceptions of the causes and characteristics of children's difficulties and how their conceptions of such difficulties influenced what they believe it is possible to do. In an educational climate in which the 'medicalisation of childhood' and the use of labels for children's difficulties remain contentious (Hill & Turner, 2016; Timimi & Taylor, 2004; Tseng, 2017), it is important to gain greater understanding of the impact of these phenomena on teachers' beliefs and practices.

Rationale

Our premise for our study was that children are categorised and labelled. We were curious to discover if the labels used to describe children affected teachers' thinking about the nature of children's difficulties (their essentialist beliefs) and what teachers believe they can do to support these children (their efficacy beliefs). We also recognise that efficacy and essentialist beliefs are conceptually related. One (essentialism), represents the 'external' perception of the observed phenomenon. The other (efficacy), representing the 'internal', subjective reflection on what the teacher can do about the observed phenomenon. In order to take a broader approach than that employed by Gibbs and Elliott (2015), we conducted

our study in the context of two key aspects of education (behaviour and literacy) across two differing educational contexts (Finland and the UK).

In the context of children's problematic behaviours there is debate about the extent to which it is possible to unambiguously diagnose 'ADHD' (Timimi & Taylor, 2004; Visser & Jehan, 2009; Wheeler, 2010). Evidence indicates that 'ADHD' is amongst the most prevalent diagnosed conditions in children and adolescents (Thomas, Sanders, Doust, Beller, & Glasziou, 2015). Further, the incidence and prevalence of 'ADHD' does not appear to vary significantly across jurisdictions (Atladottir et al., 2015).

In the case of literacy difficulties, on the other hand, while there is general agreement that there is no scientifically valid discriminant for significant reading difficulty (see Elliott & Grigorenko, 2014; Stanovich, 1994), it is evident that the rate of acquisition of literacy and the nature of any difficulties that may occur differ between Finland and the UK. It is probable that this is, at least in part, due to the differing role of the linguistic and orthographic factors implicated in literacy skills in Finnish and English (Seymour, Aro, & Erskine, 2003; Sikiö, Siekkinen, & Holopainen, 2016). In brief, the nature of Finnish orthography provides a regular and 'transparent' relationship with sounds in the oral language, whereas in English the relationship is considerably more complex and 'opaque'. As a consequence the rate of development of word reading in English is much slower than in Finland (Aro & Wimmer, 2003; Seymour et al., 2003). Thus, it may be that Finnish teachers encounter fewer children persistently struggling with the understanding of alphabetic principle and basic decoding skill, and that the difficulties with reading experienced by children in Finland are likely to be different from those experienced in the UK.

Since there are no known biological markers that unambiguously discriminate extreme difficulties in either of the domains of behaviour or reading (though we do understand that these difficulties may be underpinned by biological or genetic factors), we suggest that for the purposes of examining the effect of category labelling on teachers' beliefs, both of the extreme category labels in these domains ('ADHD' and 'Dyslexia') may be posited as 'social categories' (Haslam, 2017; Haslam, Rothschild, & Ernst, 2000) rather than differences of a 'natural kind' (Quine, 1977). In their study of people's essentialist beliefs about social categories Haslam et al. (2000) suggested that members of social categories thought to be natural, homogenous and immutable were more likely to be vulnerable to prejudice and stigma.

Teachers' beliefs and behaviours are clearly influenced by the professional identities that are formed by cultural norms and expectations inherent in their professional education (Beijaard, Meijer, & Verloop, 2004; Gibbs, 2018). However, we are also conscious that an often-overlooked issue is the assumption that a set of behaviours is indicative of one and only one kind of underlying "explanation" (e.g. being fidgety all the time = ADHD, struggling with reading = Dyslexia). This assumption ignores that it is an active (yet often subconscious) and subjective decision to interpret observed behaviour in a certain way. As suggested by the work of Jordan and Stanovich (2003, 2004) and Haslam and colleagues (Haslam et al., 2000; Haslam, Rothschild, & Ernst, 2002; Haslam & Whelan, 2008), it may be thought that what teachers believe about the nature of children's difficulties may be associated with

their beliefs about what it is possible to do effectively. However, as noted above, while the internalist approaches of Haslam and others are both plausible and informative, it is also possible that social structures such as the nature of educational philosophies and systems may also constrain what are perceived to be possible interventions (Vasilyeva, Gopnik, & Lombrozo, 2018).

To investigate the potential effects of labelling, several studies have employed systematically varied vignettes to evoke espoused beliefs and prejudices (see, for instance, Angermeyer & Matschinger, 2003; Lee, Cheung, & Chen, 2019; Ohan et al., 2011). In this tradition, to test for possible effects associated with the labels 'ADHD' and 'Dyslexia', we solicited teachers' responses to vignettes in which the difficulties of a child were described in two domains (behaviour; literacy). Prompted by the work of Haslanger (2016) and Vasilyeva et al. (2018), we also speculated that the pattern of the relationships between essentialist and efficacy beliefs might vary according to differences in teachers' context and cultural norms.

Comparisons of the educational systems in Finland and the UK show that teacher education in Finland is extensive (taking five years to gain the necessary qualification of a master's degree) with inclusion as a guiding principle (Pesonen et al., 2015; Sahlberg, 2015). Despite that emphasis, however, a feature of the Finnish system in practice is that special education teachers, rather than class teachers, have a defined role in every school to help children who show difficulty with an aspect of their education. The availability of this intervention is irrespective of (and without the need for) any putative diagnosis. Therefore, Finnish class teachers may expect that specialist teachers will take greater responsibility for children showing difficulties, particularly with respect to problematic behaviours (Honkasilta, Vehkakoski, & Vehmas, 2016; Savolainen et al., 2012; Takala, Silfver, Karlsson, & Saarinen, 2018).

In the UK, in contrast, initial teacher education is provided in a range of ways. Many primary teachers (around 45%) acquire qualified teacher status by studying for a one year post-graduate certificate; others pursue an 'apprenticeship' to become qualified teachers or a degree in education that confers qualified teacher status (DfE, 2018a). In the UK there is also a formal requirement that the special needs of children are categorised and labelled (DfE, 2015; Florian et al., 2006; McLaughlin et al., 2006; Tomlinson, 2017). Currently around 2.9% of children and young people in England are deemed to require a formal statement of their special educational needs (termed their 'Education and Health Care Plan), of whom just over 44% are educated in segregated special schools (DfE, 2018b). Given the differences between the two educational contexts we will explore whether they are reflected in teachers' levels of efficacy and essentialist beliefs.

In summary our investigations were motivated by the following main questions:

1. Is a category label ('ADHD' or 'Dyslexia') associated with changes in teachers' essentialist and efficacy beliefs about children who show difficulties in the respective domain?

2. Do teachers' efficacy and essentialist beliefs differ across domains (behaviour; reading) and between the two educational contexts of Finland and the UK?

In general terms, we hypothesised that the presence of a formal category label would encourage essentialist thinking and be associated with lower efficacy beliefs as found by Gibbs and Elliott (2015).

Method

Design A quasi-experimental 2x2x2 counterbalanced design was used with Country as a quasi-experimental factor, and Labelling and Domain as experimentally manipulated factors. Data on teachers' essentialist and efficacy beliefs about children with educational difficulties were collected in two countries (Finland; UK), in two domains (behaviour; reading) after being exposed to two descriptions of a child that differed regarding the use of labels when describing his difficulties (labelled; unlabelled).

Participants An opportunity sample of 124 primary school teachers from Finland ($N_{Finnish}$ = 62) and the UK (N_{UK} = 62) was recruited via advert, social media and personal contact.

Materials Two vignettes describing a 9-year-old boy were developed and trialled in both countries[4]. One vignette consisted of a description of a boy showing fidgety, restless behaviour, the other of a boy making slow progress with reading. Two variants were developed for each domain. In one, the child was described as having been formally diagnosed and labelled (with ADHD or Dyslexia, respectively); in the other variant the identical descriptions were presented but without a category label. Given the higher incidence of both ADHD and Dyslexia amongst boys, in order to minimise the number of independent variables, a decision was taken to portray a boy in the vignettes. Measures of teachers' efficacy and essentialist beliefs based on those used by Gibbs and Elliott (2015) [that were in turn derived from instruments developed by Tschannen-Moran and Johnson (2011) and Haslam and Levy (2006)], respectively, were revised and trialled. In order to reduce the burden on respondents, items were selected from those by Gibbs and Elliott (2015) to represent the balance of factors discerned in the earlier work. The questionnaires to be used in Finland were translated from English and then back-translated[5] to ensure consistency. Following trials in both countries, some minor changes to terminology were made. The final version of the Efficacy beliefs measure consisted of 9 items; that of Essentialist beliefs consisted of 7 items[6]. Responses to both questionnaires were recorded on a 5-point Likert-type scale. For Efficacy items (Cronbach's α = .93) the anchors for 'To what extent do you believe you can…' were 1 (Not at all), and 5 (A great deal). For the Essentialist items (Cronbach's α= .76), anchors in 'relation to your present beliefs about such children' were 1 (Very strongly disagree), and 5 (Very strongly agree). For each participant total scores were computed. The theoretical range for the essentialist belief scale was 7 to 35, and the scores for the efficacy scale could range from 9 to 45. The vignettes and

[4] Available on request from the 1st author.
[5] Our thanks to Dr Rea Reason who undertook this for us.
[6] Copies available from 1st author.

accompanying questionnaires were uploaded on the IT server at the University of Jyvaskyla, Finland. The design was such that all responses were anonymous but coded by country.

Procedure The computer program ensured that vignettes and questionnaires were presented in the appropriate language and in a random and counterbalanced way so that each teacher was presented with one vignette relating to behaviour and another relating to reading difficulties (with the order of domain randomly assigned). Participants were asked to read and respond in turn to two successive vignettes. Following each vignette they completed the survey of their efficacy and essentialist beliefs regarding the child described in that vignette.

The order of presentation of domain was systematically varied, as was the use of category labelling, so that each teacher was presented with one vignette in which difficulties in one domain were formally labelled and one in the other domain in which no label was applied.

In all cases the survey of Efficacy beliefs was presented first to minimise the risk that being prompted to consider their views about the essential nature of the difficulties might prime weaker efficacy responses.

Results

Table 1 (below) provides a summary of the data.

Table 1 about here

To test whether the use of category labels when describing a pupil's difficulties has an effect on teachers' confidence in their professional competencies (efficacy beliefs) and how they interpret the underlying causes for perceived or described difficulties of learners (essentialist thinking) we conducted an 2x2x2 ANOVA with responses to unlabelled and labelled vignettes as a within-person variable. The analyses indicate that there was a main effect of labelling for essentialism, such that, in general, labelling was associated with higher essentialism ($F_{1,120} = 15.131$, $p \leq .001$, part. $\eta^2 = .112$), but no such effect was found for efficacy ($F_{1,120} = 0.029$, $p = .865$, part. $\eta^2 = .000$). The analyses also indicate that teachers working in different educational contexts (i.e., Finland vs UK) differed substantially in their overall level of essentialist beliefs as well as their level of efficacy (essentialist beliefs: $F_{1,120} = 35.951$, $p \leq .001$, part. $\eta^2 = .231$; efficacy: $F_{1,120} = 53.366$, $p \leq .001$, part. $\eta^2 = .308$). UK teachers in our sample tended to report lower levels of essentialist thinking, and higher levels in efficacy than their Finnish counterparts.

To further explore whether the effect (or the lack thereof) differed between countries or domains (Behaviour vs. Reading) we consulted the results regarding the respective interaction effects. For essentialist beliefs UK teachers did not differ from their Finnish colleagues in the extent to which the use of a category label in the description of a pupil's difficulties changed their interpretation of the underlying causes for these difficulties – and vice versa ($F_{1,120} = 0.885$, $p = .349$, part. $\eta^2 = .007$, left panel in Figure 1). This was also the case for teachers' efficacy beliefs ($F_{1,120} = 0.029$, $p = .865$, part. $\eta^2 = .000$, right panel in

Figure 1), i.e., both UK and Finnish teachers in our sample were unaffected by the use of labelling terms with regard to their beliefs of their sense of efficacy despite the fact that teachers from both countries differ in their overall level of efficacy beliefs.

Figure 1 about here

The significant interaction between labelling and domain for essentialism ($F_{1,120} = 5.577$, $p \leq .020$, part. $\eta^2 = .044$, left panel Figure 2) indicates that the use of the term "Dyslexia" in the description of a pupil's reading difficulties tended to have a slightly stronger effect on teachers' essentialist beliefs in comparison to the use of "ADHD" in the context of describing a pupil's behavioural difficulties. No such differences were observed for efficacy ($F_{1,120} = 0.826$, $p \leq .365$, part. $\eta^2 = .007$, right panel Figure 2), suggesting that neither the use of the term "Dyslexia", nor the use of "ADHD" affected teachers' beliefs in their efficacy.

Figure 2 about here

General Discussion

In this study, we examined the relationship of two different category labels to the essentialist and efficacy beliefs of primary school teachers in Finland and the UK. In order to test for any influence of a category label, we compared teachers' responses to a description of a 9-year-old boy's difficulties that was systematically varied so that the description was presented either with or without a category label.

We hypothesised that when a child's difficulties were ascribed a category label teachers would perceive the target child as having more essentialised characteristics, as predicted by the work of Haslam et al. (2000). The findings of this study support this hypothesis since we found that labelling in general was associated with stronger essentialist beliefs about the child. Interestingly, and in replication of Gibbs and Elliott (2015), the significant interaction effect indicated that the use of the term "Dyslexia" in the description of a pupil's reading difficulties had a slightly stronger effect on teachers' essentialist beliefs in comparison the use of "ADHD" in the context of describing a pupil's behaviour. These findings suggest that when a child is described as "having" dyslexia, teachers may adopt greater essentialist beliefs. However, in contrast to the findings of Gibbs and Elliott (2015) who, using a rather different procedure and with a focus on the structure of teachers' beliefs, reported that aspects of teachers' efficacy beliefs were enhanced in the presence of the label 'dyslexia', in this study efficacy beliefs did not vary across conditions in either domain, suggesting that categorical labelling had no influence on teachers' efficacy beliefs.

It is also of interest that there were significant differences in the pattern and association of beliefs evoked by our vignettes in the two countries. UK respondents espoused higher efficacy beliefs, whilst Finnish teachers tended to display higher levels of essentialist thinking. This was an unexpected result, since in the UK there is a requirement for formal categorisation of children's special needs, whereas in Finland there is no formal requirement for assessment or categorising children's difficulties but an expectation that all teaching is responsive to individual children's rate and manner of educational progress

(Björn, Aro, Koponen, Fuchs, & Fuchs, 2016; Dyson & Gallannaugh, 2008; Florian et al., 2006; Pesonen et al., 2015; Thuneberg et al., 2014; Tomlinson, 2017; Yada, Tolvanen, & Savolainen, 2018). Therefore, we wonder if these cultural differences between teachers thinking might support the proposition of Vasilyeva et al. (2018) that different socio-political structures may affect the way teachers construe children's difficulties and suggest that this is an issue needing further research.

Limitations

Whilst the recruitment strategy and the sample size in this study might be perceived as a potential liability in terms of generalisability of the findings, the fact that the effect pattern (ie the labelling effect for essentialism but not for efficacy) tend not to differ across countries and/or domain (despite the differences in overall levels) nurtures optimism regarding their meaningfulness.

We also recognise that efficacy and essentialist beliefs are conceptually related. One (essentialism), represents an 'external' view of the nature of the observed phenomenon. The other (efficacy), representing the internal view of the self-perception of the teacher's belief about what s/he can do about the observed phenomenon. Thus, for example, responses to an item in the Essentialist beliefs scale such as 'Children like Michael cannot ever become fluent readers' might also reflect teachers' perceptions of their efficacy. We believe that future work, conceptually as well as operationally, needs to sufficiently account for the fact that both concepts represent to some extent "same sides of different coins".

Further work in this field should also include more systematic and more direct enquiries into the effects of differing educational policies and about the nature of teachers' professional education.

In order to circumvent at least some of the limitations of the study reported here, future studies could also seek to recruit larger and more representative samples. Greater detail might be gained from not only more precise measures but also by interviewing individual teachers about their beliefs and practices. Clearly further work is needed to elucidate the effects of socio-political structures on teachers' beliefs and of the effect of categorical labelling on teachers' beliefs.

Conclusions

The focus of this paper has been on the meanings that may be communicated by labels and how, as 'resources that orient professionals' actions' (Grossen et al., 2014, p. 17), these may influence teachers' beliefs about children.

The use of samples from two differing educational systems and using descriptions referring to two different domains serves as cross-validation of the effect of labels on essentialist thinking and efficacy beliefs. Results suggests that while the use of category labels is likely to have an effect on teachers' perceptions of the nature of their pupils' difficulties, category labels do not appear to influence teachers' beliefs in their efficacy. Results also alert us to the importance of considering the relativity of such effects across socio-cultural, or educational contexts.

References

Angermeyer, M. C., & Matschinger, H. (2003). The stigma of mental illness: effects of labelling on public attitudes towards people with mental disorder. *Acta Psychiatrica Scandinavica, 108*(4), 304-309. doi:doi:10.1034/j.1600-0447.2003.00150.x

Aro, M., & Wimmer, H. (2003). Learning to read: English in comparison to six more regular orthographies. *Applied Psycholinguistics, 24*(4), 621-635. doi:10.1017/S0142716403000316

Atladottir, H. O., Gyllenberg, D., Langridge, A., Sandin, S., Hansen, S. N., Leonard, H., . . . Parner, E. T. (2015). The increasing prevalence of reported diagnoses of childhood psychiatric disorders: a descriptive multinational comparison. *European Child & Adolescent Psychiatry, 24*(2), 173-183. doi:10.1007/s00787-014-0553-8

Bandura, A. (1997). *Self-Efficacy: The exercise of control*. New York: Freeman.

Bastian, B., & Haslam, N. (2006). Psychological essentialism and stereotype endorsement. *Journal of experimental social psychology, 42*(2), 228-235.

Beijaard, D., Meijer, P. C., & Verloop, N. (2004). Reconsidering research on teachers' professional identity. *Teaching and Teacher Education, 20*(2), 107-128. doi:http://dx.doi.org/10.1016/j.tate.2003.07.001

Björn, P. M., Aro, M. T., Koponen, T. K., Fuchs, L. S., & Fuchs, D. H. (2016). The Many Faces of Special Education Within RTI Frameworks in the United States and Finland. *Learning Disability Quarterly, 39*(1), 58-66. doi:10.1177/0731948715594787

Caprara, G. V., Barbaranelli, C., Steca, P., & Malone, P. S. (2006). Teachers' self-efficacy beliefs as determinants of job satisfaction and students' academic achievement: A study at the school level. *Journal of School Psychology, 44*(6), 473-490. doi:DOI: 10.1016/j.jsp.2006.09.001

Cuttler, C., & Ryckman, M. (2018). Don't Call Me Delusional: Stigmatizing Effects of Noun Labels on People With Mental Disorders. *Stigma and Health*, Advance online publication. doi:http://dx.doi.org/10.1037/sah0000132

DfE. (2015). *Special educational needs and disability code of practice: 0 to 25 years*. London: Department for Education

DfE. (2018a). *Initial teacher training (ITT) census: 2017 to 2018*. London: DfE.

DfE. (2018b). *Special educational needs in England: January 2018*. London: DfE.

Dyson, A., & Gallannaugh, F. (2008). Disproportionality in Special Needs Education in England. *The Journal of Special Education, 42*(1), 36-46. doi:10.1177/0022466907313607

Elliott, J., & Grigorenko, E. L. (2014). *The dyslexia debate*. Cambridge: Cambridge University Press.

Florian, L., Hollenweger, J., Simeonsson, R. J., Wedell, K., Riddell, S., Terzi, L., & Holland, A. (2006). Cross-Cultural Perspectives on the Classification of Children with Disabilities: Part I. Issues in the Classification of Children with Disabilities. *Journal of Special Education, 40*(1), 36-45.

Foroni, F., & Rothbart, M. (2011). Category Boundaries and Category Labels: When Does A Category Name Influence the Perceived Similarity of Category Members? *Social Cognition, 29*(5), 547-576. doi:10.1521/soco.2011.29.5.547

Foroni, F., & Rothbart, M. (2013). Abandoning a label doesn't make it disappear: The perseverance of labeling effects. *Journal of experimental social psychology, 49*(1), 126-131. doi:http://dx.doi.org/10.1016/j.jesp.2012.08.002

Gibbs, S. (2018). *Immoral Education: The assault on teachers' identity, autonomy and efficacy*. Abingdon: Routledge.

Gibbs, S., & Elliott, J. (2015). The differential effects of labelling: how do 'dyslexia' and 'reading difficulties' affect teachers' beliefs. *European Journal of Special Needs Education, 30*(3), 323-337. doi:10.1080/08856257.2015.1022999

Grossen, M., Florez, D., & Lauvergeon, S. (2014). Dealing with clients' diversity in test situations: Client categorisations in psychologists' accounts of their practices. *International Journal of Educational Research, 63*, 15-25. doi:https://doi.org/10.1016/j.ijer.2012.09.003

Haslam, N. (2017). The Origins of Lay Theories: The Case of Essentialist Beliefs. In C. M. Zedelius, B. C. N. Müller, & J. W. Schooler (Eds.), *The Science of Lay Theories: How Beliefs Shape Our Cognition, Behavior, and Health* (pp. 3-16). Cham: Springer International Publishing.

Haslam, N., & Levy, S. R. (2006). Essentialist Beliefs About Homosexuality: Structure and Implications for Prejudice. *Personality and Social Psychology Bulletin, 32*(4), 471-485. doi:10.1177/0146167205276516

Haslam, N., Rothschild, L., & Ernst, D. (2000). Essentialist beliefs about social categories. *British Journal of Social Psychology, 39*(1), 113-127. doi:10.1348/014466600164363

Haslam, N., Rothschild, L., & Ernst, D. (2002). Are essentialist beliefs associated with prejudice? *British Journal of Social Psychology, 41*(1), 87-100. doi:https://doi.org/10.1348/014466602165072

Haslam, N., & Whelan, J. (2008). Human natures: Psychological essentialism in thinking about differences between people. *Social and Personality Psychology Compass, 2*(3), 1297-1312.

Haslanger, S. (2016). What is a (social) structural explanation? *Philosophical Studies, 173*(1), 113-130. doi:10.1007/s11098-014-0434-5

Hill, V., & Turner, H. (2016). Educational psychologists' perspectives on the medicalisation of childhood behaviour: A focus on Attention Deficit Hyperactive Disorder (ADHD). *Educational & Child Psychology, 33*(2), 12-29.

Ho, A. (2004). To be labelled, or not to be labelled: that is the question. *British Journal of Learning Disabilities, 32*(2), 86-92.

Honkasilta, J., Vehkakoski, T., & Vehmas, S. (2016). 'The teacher almost made me cry'Narrative analysis of teachers' reactive classroom management strategies as reported by students diagnosed with ADHD. *Teaching and Teacher Education, 55*, 100-109.

Jordan, A., & Stanovich, P. J. (2003). Teachers' personal epistemological beliefs about students with disabilities as indicators of effective teaching practices. *Journal of Research in Special Educational Needs, 3*(1), no-no. doi:10.1111/j.1471-3802.2003.00184.x

Jordan, A., & Stanovich, P. J. (2004). The Beliefs and Practices of Canadian Teachers about Including Students with Special Needs in their Regular Elementary Classrooms. *Exceptionality Education Canada, 14*(2-3), 25-46.

Klassen, R., Tze, V., Betts, S., & Gordon, K. (2011). Teacher Efficacy Research 1998–2009: Signs of Progress or Unfulfilled Promise? *Educational Psychology Review, 23*(1), 21-43. doi:10.1007/s10648-010-9141-8

Lee, K. W., Cheung, R. Y. M., & Chen, M. (2019). Preservice teachers' self-efficacy in managing students with symptoms of attention deficit/hyperactivity disorder: The roles of diagnostic label and students' gender. *Psychology in the Schools, 56*, 1-13. doi:https://doi.org/10.1002/pits.22221

Link, B. G., Phelan, J. C., & Hatzenbuehler, M. L. (2014). Stigma and Social Inequality. In J. D. McLeod, E. J. Lawler, & M. Schwalbe (Eds.), *Handbook of the Social Psychology of Inequality* (pp. 49-64). Dordrecht: Springer Netherlands.

Lopes, J. (2012). Biologising reading problems: the specific case of dyslexia. *Contemporary Social Science, 7*(2), 215-229. doi:10.1080/21582041.2012.692098

Malinen, O.-P., Savolainen, H., Engelbrecht, P., Xu, J., Nel, M., Nel, N., & Tlale, D. (2013). Exploring teacher self-efficacy for inclusive practices in three diverse countries. *Teaching and Teacher Education, 33*, 34-44. doi:http://dx.doi.org/10.1016/j.tate.2013.02.004

McLaughlin, M. J., Dyson, A., Nagle, K., Thurlow, M., Rouse, M., Hardman, M., . . . Perlin, M. (2006). Cross-Cultural Perspectives on the Classification of Children With Disabilities:Part II. Implementing Classification Systems in Schools. *The Journal of Special Education, 40*(1), 46-58. doi:10.1177/00224669060400010501

Medin, D. L. (1989). Concepts and conceptual structure. *American Psychologist, 44*(12), 1469-1481.

Mehan, H. (2014). The prevalence and use of the psychological–medical discourse in special education. *International Journal of Educational Research, 63*, 59-62.
Ohan, J. L., Visser, T. A., Strain, M. C., & Allen, L. (2011). Teachers' and education students' perceptions of and reactions to children with and without the diagnostic label “ADHD”. *Journal of School Psychology, 49*(1), 81-105.
Pesonen, H., Itkonen, T., Jahnukainen, M., Kontu, E., Kokko, T., Ojala, T., & Pirttimaa, R. (2015). The Implementation of New Special Education Legislation in Finland. *Educational Policy, 29*(1), 162-178. doi:10.1177/0895904814556754
Prentice, D. A., & Miller, D. T. (2007). Psychological essentialism of human categories. *Current Directions in Psychological Science, 16*(4), 202-206.
Quine, W. V. (1977). Natural Kinds. In S. P. Schwartz (Ed.), *Naming, necessity , and natural kinds* (pp. 157-175). Ithaca, NY: Cornell University Press.
Rendon, M. (1984). Myths and Stereotypes in Minority Groups. *International Journal of Social Psychiatry, 30*(4), 297-309. doi:10.1177/002076408403000407
Rhodes, M., Leslie, S.-J., & Tworek, C. M. (2012). Cultural transmission of social essentialism. *Proceedings of the National Academy of Sciences, 109*(34), 13526-13531.
Rothbart, M., & Taylor, M. (1992). Category labels and social reality: Do we view social categories and natural kinds? In G. Semin & F. Fiedler (Eds.), *Language, interaction and social cognition* (pp. 11-36). London: Sage.
Sahlberg, P. (2015). *Finnish lessons 2.0: What can the world learn from educational change in Finland?* New York: Teachers College Press.
Savolainen, H., Engelbrecht, P., Nel, M., & Malinen, O.-P. (2012). Understanding teachers’ attitudes and self-efficacy in inclusive education: Implications for pre-service and in-service teacher education. *European Journal of Special Needs Education, 27*(1), 51-68. doi:https://doi.org/10.1080/08856257.2011.613603
Seymour, P. H. K., Aro, M., & Erskine, J. M. (2003). Foundation literacy acquisition in European orthographies. *British Journal of Psychology, 94*(2), 143-174. doi:doi:10.1348/000712603321661859
Sikiö, R., Siekkinen, M., & Holopainen, L. (2016). Literacy Development Among Language Minority Background and Dyslexic Children in Finnish Orthography Context. *Reading Psychology, 37*(5), 706-727. doi:10.1080/02702711.2015.1105339
Stanovich, K. E. (1994). Annotation: Does dyslexia exist? *Journal of Child Psychology and Psychiatry, 35*(4), 579-595.
Tajfel, H., Billig, M. G., Bundy, R. P., & Flament, C. (1971). Social categorization and intergroup behaviour. *European Journal of Social Psychology, 1*(2), 149-178.
Takala, M., Silfver, E., Karlsson, Y., & Saarinen, M. (2018). Supporting Pupils in Finnish and Swedish Schools—Teachers’ Views. *Scandinavian Journal of Educational Research*, 1-20. doi:10.1080/00313831.2018.1541820
Thomas, R., Sanders, S., Doust, J., Beller, E., & Glasziou, P. (2015). Prevalence of Attention-Deficit/Hyperactivity Disorder: A Systematic Review and Meta-analysis. *Pediatrics, 135*(4), e994-e1001. doi:10.1542/peds.2014-3482
Thuneberg, H., Hautamäki, J., Ahtiainen, R., Lintuvuori, M., Vainikainen, M. P., & Hilasvuori, T. (2014). Conceptual change in adopting the nationwide special education strategy in Finland. *Journal of Educational Change, 15*(1), 37-56. doi:10.1007/s10833-013-9213-x
Timimi, S., & Taylor, E. (2004). ADHD is best understood as a cultural construct. *The British Journal of Psychiatry, 184*(1), 8-9.
Tomlinson, S. (2017). *A Sociology of Special and Inclusive Education: Exploring the manufacture of inability*. London: Routledge.
Tschannen-Moran, M., Hoy, A. W., & Hoy, W. K. (1998). Teacher Efficacy: Its Meaning and Measure. *Review of Educational Research, 68*(2), 202-248. doi:10.3102/00346543068002202

Tschannen-Moran, M., & Johnson, D. (2011). Exploring literacy teachers' self-efficacy beliefs: Potential sources at play. *Teaching and Teacher Education, 27*(4), 751-761.

Tseng, F. T. (2017). From medicalisation to riskisation: governing early childhood development. *Sociology of health & illness, 39*(1), 112-126. doi:https://doi.org/10.1111/1467-9566.12484

Vasilyeva, N., Gopnik, A., & Lombrozo, T. (2018). The development of structural thinking about social categories. *Developmental psychology, 54*(9), 1735. doi:10.1037/dev0000555

Visser, J., & Jehan, Z. (2009). ADHD: A scientific fact or a factual opinion? A critique of the veracity of Attention Deficit Hyperactivity Disorder. *Emotional and Behavioural Difficulties, 14*(2), 127-140.

Wheeler, L. (2010). Critique of the article by Visser and Jehan (): 'ADHD: a scientific fact or a factual opinion? A critique of the veracity of Attention Deficit Hyperactivity Disorder'. *Emotional and Behavioural Difficulties, 15*(3), 257-267. doi:10.1080/13632752.2010.497665

Yada, A., Tolvanen, A., & Savolainen, H. (2018). Teachers' attitudes and self-efficacy on implementing inclusive education in Japan and Finland: A comparative study using multi-group structural equation modelling. *Teaching and Teacher Education, 75*, 343-355. doi:https://doi.org/10.1016/j.tate.2018.07.011

Figures

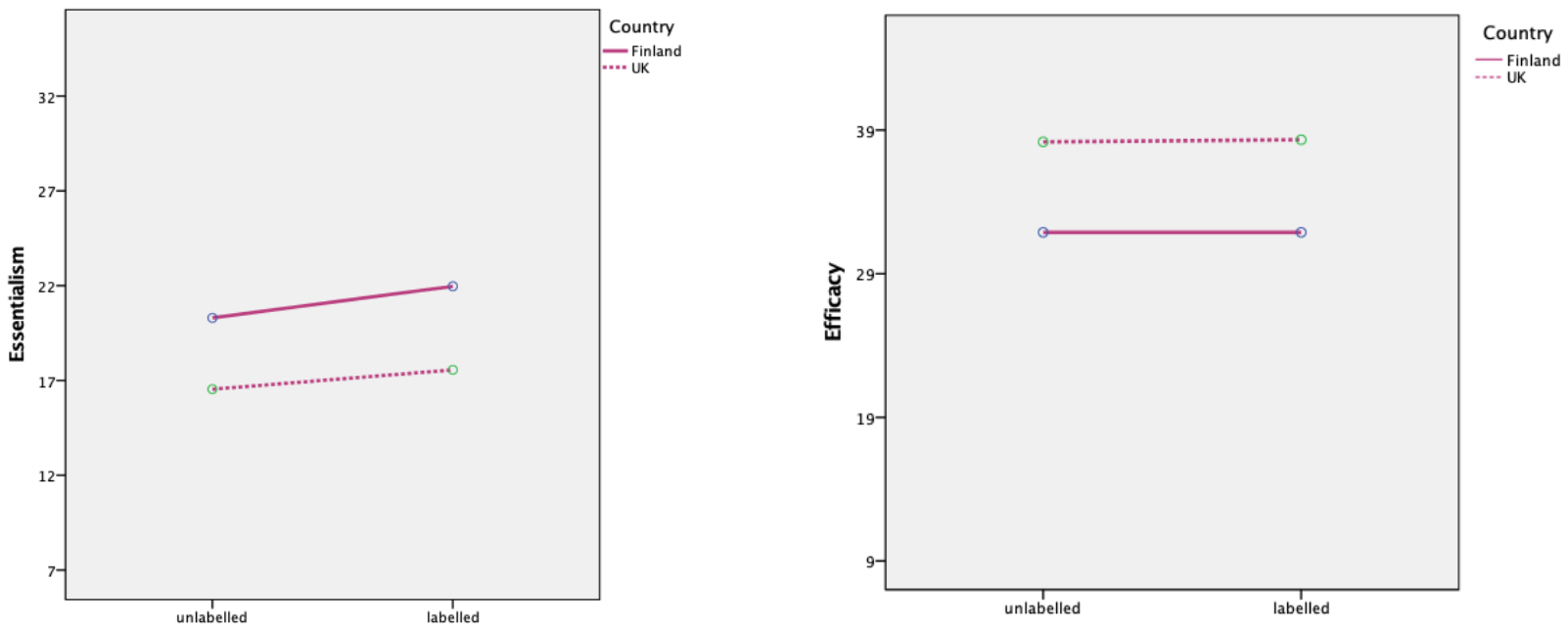

Figure 1: Interaction effects of labelling by country for essentialist thinking (left panel) and efficacy beliefs (right panel).

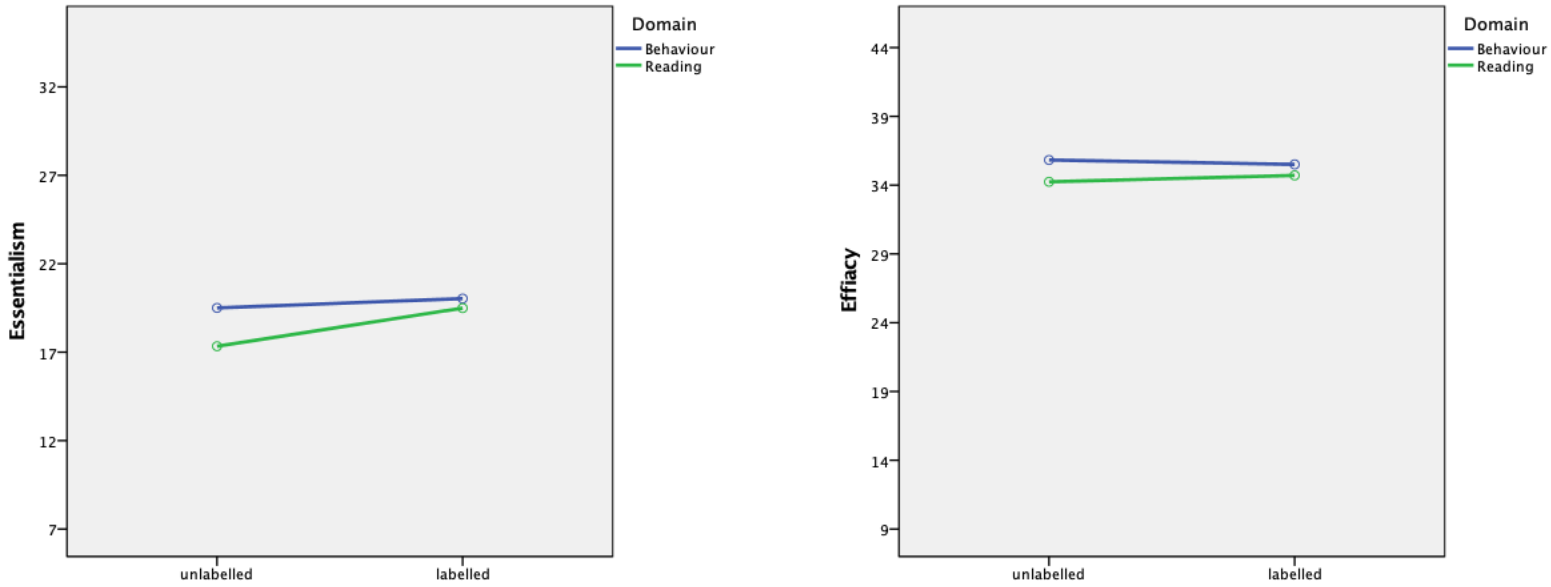

Figure 2: Interaction effects of labelling by domain for essentialist thinking (left panel) and efficacy beliefs (right panel).

Tables

Domain	Country	Efficacy		Essentialism	
		Labelled	Unlabelled	Labelled	Unlabelled
Behaviour	Finland	32.1 (4.5)	32.9 (4.7)	21.7 (3.9)	21.7 (3.2)
	UK	37.0 (7.0)	38.8 (4.7)	17.6 (6.2)	17.3 (3.4)
Reading	Finland	32.3 (5.1)	30.9 (7.5)	22.0 (3.2)	18.9 (4.6)
	UK	39.2 (5.0)	37.6 (4.6)	17.8 (4.0)	17.3 (4.9)

Table 1 Means (sd) of Efficacy and Essentialist beliefs by Domain and Country under both Conditions