



## Tracing the Biologistic Ability Paradigm in Danish Special Education: A Historical Inquiry into Three Danish Welfare State Contexts, 1923–2023

Christian Ydesen & Bjørn F. Hamre

**Abstract** • This article explores the role of the biologistic ability paradigm in Danish special education across three historical contexts (1923–2023). It examines how biologistic notions of intelligence and ability have shaped educational policies and practices within the Danish welfare state. Using a diachronic and comparative approach, the study highlights shifts in how special education has been used to classify, optimise, and manage population diversity. It discusses the influence of psychology, psychiatry, and IQ testing in shaping student differentiation and governance. The article argues that contemporary policies on gifted education and intelligence screening reflect a reconfiguration of biologistic reasoning, aligning with broader shifts toward competitiveness and individual optimisation in education. Ultimately, it demonstrates how biologistic ability paradigms have evolved as tools of governance, influencing both inclusivity and exclusion within the educational system.

**Keywords** • biologistic ability paradigm, special education, IQ testing, Danish welfare state, educational governance, psychiatry, childpsychiatry

### Introduction

The creation, consolidation, and transformation of the Danish welfare state during the interwar, post-war, and contemporary periods illustrate a recurring concern with population management. Education, particularly special education, has been a crucial area for the development and refinement of governing practices aimed at identifying, categorising, and hierarchising different “kinds of people.”<sup>1</sup>

The Danish welfare system is traditionally considered part of the Nordic family of universal – or social democratic – welfare states.<sup>2</sup> Historically, the Nordic welfare states have integrated education as one of their central pillars, alongside free healthcare,

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- 1 Thomas S. Popkewitz, *Cosmopolitanism and the Age of School Reform: Science, Education, and Making Society by Making the Child* (New York: Routledge, 2008); Bjørn F. Hamre, *Potentialitet og optimering i skolen: problemforståelser og forskelssætninger af elever – en nutidshistorisk analyse* (Copenhagen: Department of Education and Pedagogy, Aarhus University, 2012a); Christian Ydesen, *The Rise of High-Stakes Educational Testing in Denmark, 1920–1970* (Frankfurt am Main: Peter Lang, 2011).
- 2 Gösta Esping-Andersen, *The Three Worlds of Welfare Capitalism* (Cambridge: Polity Press, 1990).

social security, and universal retirement benefits, to provide public welfare services with universal coverage for their populations.<sup>3</sup>

The Nordic education systems originated from a political vision of establishing free and accessible comprehensive schooling for all, with a continuous pathway through the educational system for the entire population. This vision of a *Folkeskole* – a public school for the people – emerged in Denmark with the 1899 Education Act, which replaced the former *almueskole* – the common school – and was deeply rooted in broader political concerns about nation-building.<sup>4</sup> As the number of enrolled pupils in comprehensive schools increased from around 1900 onwards, the need for differentiation arose. Consequently, special schooling and addressing the needs of so-called “backward” children became key concerns in Nordic education systems. The special school came to be regarded as “the extreme outpost” of the *Folkeskole*, serving the “residual group” – children who did not fit into mainstream schools.<sup>5</sup>

This development can be seen as the reflection of a political and societal concern with categorising and taxonomising the population based on biological potentials.<sup>6</sup> This is, among other places, reflected in the Danish Ministerial People Commission launched in 1935, the architect of which was the Social Democratic minister for social affairs Karl Kristian Steincke (1880–1963).<sup>7</sup>

This style of reasoning – which we refer to as the biologicistic ability paradigm – belongs to the category of biologisms, a common term for approaches that use biology as the foundation for interpreting the world. Central to these ideas is the concept of human evolutionary progress and the belief that physical traits can be scientifically measured, with this data then informing policies and practices.<sup>8</sup> For instance, biologicistic educational theory asserts that educational practices and theories can be scientifically developed based on our understanding of the human body, brain or genes.

3 Christian Ydesen and Mette Buchardt, “Citizen Ideals and Education in Nordic Welfare State School Reforms,” in *Oxford Research Encyclopedia of Education* (Oxford: Oxford University Press, 2020).

4 Anne Katrine Gjerløff and Anette Faye Jacobsen, “Da skolen blev sat i system 1850–1920,” in *Dansk Skolehistorie 3. Hverdag, vilkår og visioner gennem 500 år*, ed. Charlotte Appel and Ning de Coninck-Smith (Aarhus: Aarhus University Press, 2014).

5 Bjørn F. Hamre, “Den yderste halespids: bekymring som dispositiv i skolens problemforståelser og forskelssætninger,” *Uddannelseshistorie* 46 (2012b), 70–94; Christian Ydesen, Brit Marie Hovland, and Emma Vikström, “The Scandinavian Space of IQ Testing: Between Normal and Special Education, 1918–1940,” in *Historicizing IQ Testing: Intelligence Assessments and their Role in Norwegian Society from the 1900s to the Present*, ed. Jon R. Kyllingstad and Håkon A. Caspersen (Cambridge: Open Book Publishers, 2025).

6 Bjørn F. Hamre, “Optimization as a Dispositive in the Production of Differences in Denmark Schools,” *European Education* 45, no. 4 (2013), 7–25; Bjørn F. Hamre, “Doing Dispositive Analysis on Educational Policy: Applying Inclusive Politics as an Example,” in *Thinking with Michel Foucault in Educational Leadership: Methodological and Conceptual Challenges*, ed. Richard Niesche and Denise Mifsud (New York: Bloomsbury Academic, 2025a).

7 The new social legislation emerging from the People’s Commission clearly contained elements indicating that eugenics was actively used as a tool to “improve” the Danish population at that time. See Bjørn F. Hamre, Christian Ydesen, and Simon Holleufer, “Eugenische Ideen in Dänemark vor, während und nach der deutschen Besetzung,” in *Die “Minderwertigen” – Behinderung im Faschismus*, ed. Sieglind Luise Ellger-Rüttgardt (Stuttgart: Kohlhammer, forthcoming in 2026).

8 The term “biologism” appears as an entry in the *Deutsches Fremdwörterbuch* as early as 1912. Philosophically, biologism can be described as a form of monistic materialism that regards all there is as matter. Jes Fabricius Møller, “Biologismer,” *Den jyske historiker* 112 (2006), 8–20.

Current research on policies and practices related to special education – particularly the use of IQ testing – within the framework of the Danish welfare state has provided profound insights into the political, pedagogical, institutional, and international dimensions of these phenomena.<sup>9</sup> These studies have examined specific historical periods and institutional settings in detail, often from pedagogical or psychological perspectives.<sup>10</sup> However, what remains largely absent is a broader, diachronic perspective – a helicopter view – that connects these developments in new ways while also recognising human biology as a recurring subject and rationale for intervention. Such an approach could illuminate recurring patterns and shifts in the biologically grounded mechanisms of governance within the welfare state, particularly in how population diversity has been managed to serve political objectives. From these opening reflections and observations, this article addresses the following overarching research question: How can we understand the role and significance of the biologistic ability paradigm in the formation and development of the Danish welfare state from the interwar years to the present?

Specifically, we examine three distinct and diachronic contexts within Danish education history where boundary work between mainstream and special education, rooted in biologistic notions of ability, has emerged and played a crucial role in establishing order.

By analysing these contexts diachronically and comparatively across three cases (one interwar, one post-war, and one contemporary), this article enhances our understanding of evolving welfare state regimes. It provides insights into how a shifting and reconfiguring biologistic ability paradigm has manifested in various forms while simultaneously influencing and shaping ideas about the public good as a fundamental aspect of welfare state development.<sup>11</sup>

### Theory, methodology and article structure

In our theoretical approach to the research question, we employ the concept of the dispositive as articulated in Michel Foucault's writings and subsequent interpretations of his work.<sup>12</sup> We analyse our material through three distinct but interrelated dispositives: the discipline dispositive, the security dispositive, and the optimisation dispos-

9 See, for example, Christian Ydesen, Kari Ludvigsen, and Christian Lundahl, "Creating an Educational Testing Profession in Norway, Sweden and Denmark, 1910–1960," *European Educational Research Journal* 12, no. 1 (2013), 120–38.

10 See, for example, Ning de Coninck-Smith, *For barnets skyld: Byen, skolen og barndommen 1880–1914*, (Copenhagen: Gyldendal, 2000); Carsten Bendixen, *Psykologiske teorier om intelligens og folkeskolens elevdifferentiering: En analyse af transformationen af psykologiske teorier om intelligens som baggrund for skole-psykologiske og pædagogiske afgørelser vedrørende elevdifferentiering i det 20. århundredes folkeskole* (Roskilde: Roskilde University Centre, 2006); Bjørn F. Hamre, Thom Axelson and Kari Ludvigsen, "Psychiatry in the Sorting of Schoolchildren in Scandinavia 1920–1950: IQ Testing, Child Guidance Clinics and Hospitalization," *Paedagogica Historica* 55, no. 3 (2019), 391–415.

11 Trine Øland et al., *Statecrafting on the Fringes: Studies of Welfare Work Addressing the Other* (Copenhagen: Museum Tusculanum Press, 2019).

12 Michel Foucault, *Security, Territory, Population: Lectures at the Collège de France, 1977–78*, ed. Michel Senellart, François Ewald, and Alessandro Fontana, trans. Graham Burchell (New York: Palgrave Macmillan, 2009).

itive.<sup>13</sup> These dispositives serve as analytical tools to untangle the biologicistic ability paradigm and its role in shaping the Danish welfare state.

The discipline dispositive is central to explaining governance in the emergence of the modern welfare state. It refers to the establishment of societal norms, such as those defining what it means to be a reasonable citizen or student. Norming processes – such as defining who is deemed “right,” “usable,” or “gifted” – have been integral to educational reforms since the eighteenth century. These processes set standards for behaviour, shaping the future by producing desirable subjects through regulation and control.<sup>14</sup>

In our analysis, we use the discipline dispositive to examine the demands for general knowledge within the education system and society. This includes expectations regarding how individuals are recognised as good students and the criteria by which they are assessed. The disciplinary mechanisms embedded in education reinforce societal standards of reasonability and desirability, conditioning students to conform to predetermined norms.<sup>15</sup> Within the context of the Danish welfare state, the biologicistic ability paradigm has historically contributed to defining these norms by linking individual potential to inherited or innate capacities, thus shaping educational trajectories and institutional practices.

The security dispositive focuses on managing unforeseen events and behaviours that challenge established norms. It operates through normalisation, wherein the unexpected or problematic is rendered intelligible and manageable. Technologies of securitisation play a crucial role in mitigating risks, such as epidemics or delinquency, by pre-emptively controlling potential disruptions to societal stability.<sup>16</sup>

Our analysis employs the security dispositive to understand the role of special education as a practice designed to address deviations from expected societal norms. Special education, within the Danish welfare state, functions as a form of securitisation – anticipating that some children will not meet normative expectations and thereby institutionalising responses to such deviations. This logic for mitigating deficiency is often informed by bell-curve thinking, which assumes that achievement is normally distributed, with most children meeting expectations and a minority either exceeding or failing them.<sup>17</sup> The biologicistic ability paradigm has played a significant role in shaping how educational systems identify and manage at-risk students, reinforcing policies that aim to contain and mitigate deviations from the norm through differentiated schooling and support structures.

The optimisation dispositive extends beyond norming and normalisation to encompass the enhancement of individual and collective potential. It is concerned with opti-

13 Bjørn F. Hamre, Anne Morin, and Christian Ydesen, eds., *Testing and Inclusive Schooling: International Challenges and Opportunities* (London: Routledge, 2018).

14 Foucault (2009), 56.

15 Foucault (2009), 57.

16 Foucault (2009), 58–59.

17 Roger Slee, “How Do We Make Inclusive Education Happen When Exclusion is a Political Predisposition?” *International Journal of Inclusive Education* 17, no. 8 (2013), 895–907; Bjørn F. Hamre, “Inclusion and the Management of Diversity in the Danish Welfare State,” in *Who’s In? Who’s Out? What to Do About Inclusive Education*, ed. Marnie Best, Tim Corcoran, and Roger Slee (Brill: Sense Publishing, 2018), 33–46.

missing human and economic potential to achieve future prosperity. This dispositive integrates biological notions of human optimisation with progressive educational ideas and economic strategies aimed at maximising the efficiency of populations, states, and individuals.<sup>18</sup>

Our analysis highlights how biological optimisation is a pervasive dynamic that manifests in different ways across historical and institutional contexts. Within the Danish welfare state, the biologistic ability paradigm has contributed to shaping policies that seek to optimise both individual capacities and societal prosperity. The optimisation dispositive thus frames educational initiatives as instruments for fostering economic growth and shaping individuals into productive members of society.<sup>19</sup> In this sense, we explore how the biologistic imaginary has influenced educational policies that seek to enhance human capital while maintaining social cohesion.

These three dispositives – discipline, security, and optimisation – function in interrelated ways to shape educational policies and practices. The discipline dispositive establishes and reinforces societal norms, the security dispositive anticipates and manages deviations from these norms, and the optimisation dispositive seeks to enhance human and economic potential. By applying these analytical lenses, we demonstrate how the biologistic ability paradigm has been instrumental in shaping the formation and development of the Danish welfare state from the interwar years to today.

In line with Foucault, we identify the bell curve as a crucial technology for illustrating the distribution of students according to their individual skills and knowledge.<sup>20</sup> This perspective aligns with Tomlinson, who argues that mass education systems have always been “hierarchical, differentiated in terms of wealth and status, dependent on ideological assumptions of normality and ability, and thus inevitably exclusive, however much this is disguised.”<sup>21</sup> Tomlinson provides numerous examples to show how “the Platonic myth that children are born as gold, silver, iron, or brass has long served elite groups who need rationalisations and ideological justification for treating children differently based on social class, race and ethnicity, and disability.”<sup>22</sup> Therefore, the aim of this article is to explore the evolving configurations of less, normally, and highly gifted students by analysing the imaginaries surrounding biology and ability in the formation and development of the Danish welfare state from the interwar years to the present.

Our analytical journey begins in the interwar years, focusing on the Education Psychology Study Commission (*Udvalget for Skolepsykologiske Undersøgelser*), established in 1924. This commission played a pivotal role in the development of IQ testing and educational psychology in Denmark, serving as a hub for leading proponents of intelligence testing.<sup>23</sup> As a private organisation with close ties to teacher unions and the

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18 Hamre (2012a).

19 Hamre (2025a).

20 Foucault (2009).

21 Sally Tomlinson, *A Sociology of Special and Inclusive Education: Exploring the Manufacture of Inability* (New York: Routledge, 2017), 60.

22 Tomlinson (2017), 62.

23 Frederik Forrai Ørskov and Christian Ydesen, “Playing the Game of IQ Testing in England and Denmark in the 1930s–1960s: A Socio-Material Perspective,” *Oxford Review of Education* 44, no. 5 (2018), 599–615.

government, it provides a valuable lens for examining the interplay between scientific knowledge and political decision-making. Our analysis draws on historical publications, official documents from the Danish National Archives, and articles from the Nordic journal *Hjælpskolan/Værneskolen/Særskolen* (1923–1940) to reconstruct the commission's role in shaping policies and practices in educational psychology.

The post-war period, by contrast, is explored through a different type of institutional context: the expansion of special education in Copenhagen and the broader professionalisation of educational psychology. This period is characterised by new institutional arrangements, such as consultant services, observation colonies, and an increasing reliance on child psychiatrists in the assessment of schoolchildren. Unlike the inter-war commission, which reflects high-level policy deliberations, this case highlights the everyday professional work of defining and managing children's abilities. Here, the emergence of psychiatry alongside educational psychology marks an important shift in the classification of children, with psychiatrists diagnosing those whom psychological assessments alone could not fully account for. Additionally, the Psychotechnical Institute, which employed applied psychology, was another key institution shaping how practical and academic abilities were distinguished. Taken together, these professional networks illustrate how post-war institutions constructed new categories of ability and disability, optimising children for different educational and occupational trajectories.

The contemporary case illustrates a different kind of development: the introduction of a new evaluation and assessment system in Danish public schools, which mandates screening for high intelligence (giftedness) among all first graders starting in the 2024/2025 school year.<sup>24</sup> This case does not centre on a specific commission or professional network but instead reflects the translation of concerns about biology and ability into large-scale policy and practice. Unlike the previous cases, where expertise was concentrated in commissions or professional institutions, this contemporary shift embeds assessment directly into the school system's structure, making intelligence screening an element of early education. To analyse this case, we rely on policy documents and contemporary research publications, which offer insight into how intelligence is conceptualised and operationalised in today's educational landscape.

Crucially, these three cases can be seen as manifestations of the biologicistic ability paradigm, but they illustrate different mechanisms through which scientific knowledge about intelligence and ability has been institutionalised in Danish education over time. The first case highlights the relationship between scientific expertise and political decision-making, the second emphasises the role of professional networks in defining and managing educational classifications, and the third explores the large-scale policy implementation of intelligence assessment. This variation allows us to trace continuity and change in how different actors – commissions, professional communities, and policymakers – have constructed the meaning of intelligence and ability in different historical contexts.

At the same time, the differences between these cases necessitate a critical reflection on the sources used. Each type of source – commission protocols, institutional

24 Danish Ministry for Children and Education, "Aftale om det fremtidige evaluerings- og bedømmelsessystem i folkeskolen," October 29, 2021. <https://www.uvm.dk/-/media/filer/uvm/aktuelt/pdf21/okt/211029-aftale-om-det-fremtidige-evaluerings-og-bedoemmelssystem-i-folkeskolen.pdf>.

records, professional journals, and contemporary policy documents – offers distinct perspectives and is shaped by being intended for different audiences and purposes. Commission records provide insight into elite decision-making but may obscure broader professional debates or public reactions. Institutional documents and records of professional networks allow us to trace the practices of psychologists and psychiatrists but may not capture how children and families experienced them. Contemporary policy documents, meanwhile, represent formalised statements of intent but do not necessarily reveal how intelligence screening is implemented in practice. Acknowledging these limitations, our analysis remains attuned to both the possibilities and constraints of the available sources, ensuring a nuanced understanding of the historical trajectory of the biologistic ability paradigm in Denmark.

### Interwar case

The Educational Psychology Study Commission was established in 1924 in the Department of Applied Psychology at the University of Copenhagen. It included prominent representatives from all major educational institutions in Denmark, including teachers' unions.<sup>25</sup> The commission's primary objective was to develop various types of assessments, such as standardised achievement and vocational tests. In 1925, the commission launched its seminal work on a Danish standardisation of the Binet-Simon intelligence test, which eventually came out in 1930. This publication was pivotal in the emergence of educational psychology as a distinct profession within the Danish education system. It also facilitated the establishment of educational psychology offices in Danish municipalities in the following years and positioned educational psychology as a key intermediary between mainstream and special education.<sup>26</sup>

From its inception, the commission maintained strong political connections, including among its board members figures such as MP Vilhelm Rasmussen (1869–1939), who also served as the headmaster of the Royal Danish School of Education, and Johs. Søgaard, an MP and head teacher.<sup>27</sup> Additionally, the commission collaborated closely with the Ministry of Education on test development and the distribution of tests to schools. In 1925, the commission even proposed to the ministry that selected items

25 Udvalget for Skolepsykologiske Undersøgelser, Virksomheden 1924–1927, folder 8, duplicates, clippings etc. from the years 1927–1952, 1.1.1.7. Foreningen for Experimental Paedagogik II 1913, Historisk-Paedagogisk Studiesamling 2924, Danish National Archive (Rigsarkivet).

26 The establishment of educational psychology offices in Danish municipalities was a gradual process, beginning with Frederiksberg in 1934, followed by Copenhagen in 1935, and Gentofte in 1937. By 1944, these three municipalities in the capital region remained the only ones with formally established educational psychology offices. However, after the end of the German occupation in 1945, the pace of establishment accelerated. By 1949, educational psychology offices had been set up in the major provincial towns of Esbjerg, Aarhus, Odense, Horsens, Frederikshavn, and Aalborg. Ydesen (2011).

27 Udvalget for Skolepsykologiske Undersøgelser, Protocol for Aarene 1924–1946, folder 5, Foreningen for Experimental Paedagogik I 1913, Historisk-Paedagogisk Studiesamling 2924, Danish National Archive (Rigsarkivet).

from an IQ test be included in the upcoming middle school entrance exam. This initiative aimed to gather data and gain experience with the use of IQ tests in Denmark.<sup>28</sup>

The commission was funded through a mix of public and quasi-public sources, including contributions from the government, municipalities, and teachers' unions. This diverse funding base highlights the commission's broad support and its significant ties to government entities and the early architects of the Danish welfare state.

To fully comprehend the establishment and functioning of the Educational Psychology Study Commission, it is essential to explore the political discourse surrounding discipline, optimisation, and securitisation in society and educational policies, which has long been prevalent. As such, the role played by the backward child in society became an increasing concern of the state. Such concern is clearly visible in this 1920 quotation from special education schoolteacher Anna Vilsbæk: "We must do all we can to make the children of the special school useful for society in time."<sup>29</sup>

In a 1919 lecture to the Pedagogical Society, Alfred Lehmann (1858–1921), the founder of the University of Copenhagen's psychology laboratory and Denmark's first professor of psychology, emphasised the critical importance of placing individuals in roles aligned with their abilities, cautioning that misplacement could result in significant societal loss.<sup>30</sup> The idea of utilising testing to allocate human capital efficiently gained traction, particularly in response to the international competition and economic challenges of the interwar years. Danish educational reforms of the 1920s and 1930s were driven by this logic of utility, as evidenced by calls from teachers' unions for experimental schools and laboratories to keep pace with international standards. This competitive ethos was further amplified by critiques from the business sector and public authorities, who argued that children were not being adequately prepared for the labour market.<sup>31</sup>

The Social Democratic Party, which came to power in 1924, embraced these ideas as part of their broader reform agenda. Influenced by British Fabianism and eugenic theories, party leaders like Vilhelm Rasmussen and Karl Kristian Steincke advocated for social engineering to maximise the potential of the working class through education.<sup>32</sup> Testing was viewed as a tool to identify both talented and struggling children, aligning with meritocratic principles and the goal of mobilising the working class.

This mindset was reflected in the expansion of special education, as the issue of "backward" children gained prominence in the 1920s and 1930s. The first special teacher courses began in 1923, funded by the Ministry of Education, and by 1937, a

28 Proposal for tests used for selection for middle school, Udvalget for Skolepsykologiske Undersøgelser, Protokol for Aarene 1924–1946, folder 5, Foreningen for Experimental Paedagogik I 1913, Historisk-Paedagogisk Studiesamling 2924, Danish National Archive (Rigsarkivet). The test items proposed were fill-in-the-blanks, opposites, analogies, follow-the-rules, logical inference (the Cyril Burt test), and umbrella terms.

29 Cited in Ydesen (2011), 51.

30 Alfred Lehmann, "Enhver paa sin rette plads," *Det Pædagogiske Selskabs Aarsberetninger* (1919), 67–72.

31 Ydesen (2011).

32 Cecilie F. Stokholm Banke, *Den sociale ingeniørkunst i Danmark: familie, stat og politik fra 1900 til 1945* (Roskilde: Roskilde University, 1999).

new Education Act formalised the provision of special classes.<sup>33</sup> Despite initial resistance, the Act received broad political support, indicating a consensus on the value of educational psychology in managing student abilities.

The push for special education was further propelled by a 1936/37 study in Holbæk County, revealing that 6.2% of children had an IQ below 90 – far exceeding expectations (Meyer 1943).<sup>34</sup> This finding led to the establishment of a commission to address the need for special classes and the creation of a formal three-year educational psychologist training program at the University of Copenhagen in 1944.<sup>35</sup>

Publications like the widely proliferated *Vore børn* (“Our Children”) from 1931 and the psychologist Sofus Albin Tordrup’s 1937 work on child psychology illustrate the era’s preoccupation with applying scientific methods to child-rearing and education.<sup>36</sup> These developments positioned IQ testing as a crucial element of the zeitgeist, legitimising the merit-based sorting of students and reinforcing the role of educational psychology in Danish society.

Educational psychology thus became instrumental in identifying and addressing children’s abilities, guiding them into appropriate educational pathways. The 1937 Education Act, while a national milestone, largely codified practices already established at the local level, reflecting the pioneering efforts of a small group of educators and psychologists, including the Danish testing community led by Henning Meyer in the late 1920s.<sup>37</sup>

This section has demonstrated how educational psychology has contributed both to the optimisation of students’ abilities and to the securitisation process that channels students deemed less gifted into special educational settings, such as special classes or specialised schools. Thus, the process of educational sorting operates as a dual mechanism of optimisation and securitisation.

### Post-war case

In his retrospective reflections on the development of educational psychology offices between 1935 and 1960, leading school psychologist Rasmus Jakobsen describes the differentiation of classes and schools for children deemed problematic in relation to the discourse of giftedness.<sup>38</sup> This period saw a significant increase in the number of students referred to the school psychology office, with Jakobsen estimating that approximately 3,000 students were referred each year. This era can also be characterised by the expansion of special education practices aimed at addressing the diverse needs of these students. The optimisation of giftedness was viewed as a process to ensure that no talents were wasted. Notably, from the inception of the school psychology office, collaboration with child psychiatric outpatient clinics was considered essential.

33 F.C. Kaalund-Jørgensen, “Hvad gør vi for de Børn, der ikke kan følge Folkeskolens almindelige Undervisning?” *Hjælpskolan* (1942), 87–95.

34 Henning Meyer, “Betænkningen om særklasser i folkeskolen,” *Vor Ungdom* (1943), 33–38.

35 E. T. Rasmussen, “Redegørelse for det nye psykologisk-pædagogiske studium ved Københavns universitet,” ed. G. Christensen, *Pædagogisk-psykologisk tidsskrift* 4, no. 5–6 (1944), 113–52.

36 Ydesen (2011).

37 Ydesen (2011).

38 Rasmus Jakobsen, “Københavns Kommunes skolepsykologiske kontor 1935–1960,” *Nordisk psykologi: teori, forskning, praksis* 12, no. 6 (1960), 385–90.

Broadly speaking, the post-war period is marked by the consolidation of various new practices in special education and the increasing influence of psy-disciplines within the educational field. These practices emerged through different forms of institutionalisation and were supported by scientific arguments rooted in psychology and psychiatry. They facilitated the development of new discourses around giftedness and non-giftedness, particularly concerning students who did not fit into the optimisation framework and were therefore subjected to what this article terms “technologies of securitization.” Consequently, special education was not confined to so-called special schools or classes but, in an analytical sense, extended to a broader range of institutional discourses and practices within the welfare state. These practices were often characterised by the exclusion of students from mainstream schooling, justified by biological or psychological arguments.

The role and expansion of special education, especially in the Municipality of Copenhagen, is described in the document *Folkeskolen's Special Education – Report Submitted by the Committee Set up by the Ministry of Education, 1955* (in Danish, *Folkeskolens Specialundervisning – Betænkning Afgivet af det af Undervisningsministeriet Nedsatte Udvalg 1955*). The report provides insight into the government's plans concerning special education, particularly highlighting the role of school psychology within the educational system. This role was expanded through initiatives such as training programs, the appointment of consultants, and the establishment of new institutions like observation colonies, all of which extended the psychological scrutiny of children.<sup>39</sup> Psychology emerged as the primary scientific justification for addressing issues related to a child's perceived lack of giftedness and subsequent referral to special education. As part of this psychological expansion, school psychiatry was introduced for further assessment of children deemed problematic within the discourses of optimisation and giftedness. These developments involved interprofessional collaborations between psychologists, psychiatrists, teachers, and health professionals. Such collaborations were crucial in disseminating new psychological and biological insights related to the problematisation of a child's giftedness.<sup>40</sup> These developments and institutionalisations will be further explored below.

In addition to psychology and psychiatry, a third psychological discourse, known as psychotechnics, emerged with the establishment of the Psychotechnical Institute. The mention of this institute in the Ministry of Education's report underscores its significance within the educational system and the broader state apparatus. This institution, rooted in applied psychology, aimed to assess the vocational abilities of young people for the future labour market, particularly targeting those not considered academically gifted, such as students from special schools who might excel in manual or practical skills.<sup>41</sup>

The biological optimisation of students during the post-war period manifested through the scientific discourses of psychology, psychiatry, and psychotechnics, each introducing new technologies that shaped the relationship between students, the schooling system, and the welfare state. These interventions promoted an individu-

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39 Hamre (2025b).

40 Hamre et al. (2019).

41 Hamre (2012b).

al-oriented approach to education, focusing on optimising giftedness and identifying students for special education.

Psychology contributed to the naturalisation of intelligence, viewing it as an inherent quality that varies among individuals. Intelligence testing, despite other understandings like child psychology, reflects a biologism in conceptualising human giftedness. With increased collaboration between schools, teachers, and psychologists, child psychiatry offered diagnostic understandings of children's problems. Although sociological factors like "environmental reaction" were considered, framing these problems diagnostically contributed to their perception as biological issues. The shift in psychiatry from prevention to treatment led to the establishment of child psychiatric clinics. Although eugenic views declined, diagnosis became a key tool in spreading special educational practices, thus securitising the schooling system. Additionally, the Psychotechnical Institute, through testing students' bodies and motor skills, further entrenched biological interpretations of ability and disability, differentiating giftedness and shaping the concept of the ideal student for the welfare state workforce.

The differentiation of giftedness involved emerging collaborations among professionals – teachers, school psychologists, and psychiatrists – who assessed and examined students. Teachers observed students, psychologists conducted IQ testing, and psychiatrists evaluated mental and social conditions. Drawing from British child guidance clinics, these practices were introduced in Danish cities like Copenhagen and Aarhus in the 1930s and 1940s. Key figures like child psychiatrists Karen Margrethe Simonsen (1903–53) and Margrethe Lomholt (1903–1990) emphasised collaboration to understand and treat children's issues.<sup>42</sup> The interpretation of giftedness increasingly incorporated biological, psychological, and sociological discourses, moving beyond mere IQ testing. Simonsen noted that intelligence alone did not determine educational outcomes; other factors like character traits and health were crucial.

It is not intelligence alone that determines what a child gets out of education. It is not uncommon to see that a child with an IQ—let's say 78—is so restless and so devoid of understanding of the concept of work that he gets nothing out of the teaching in the auxiliary school. While, on the other hand, you can experience that a child with an IQ of 66–67 can keep up with the auxiliary school because he is a real hard worker, conscientious and persistent. It is therefore not enough to test a child's intelligence, you must also assess his character traits and his state of health in order to decide in what form the child should be taught, whether it should be in a normal school, an auxiliary school or in the care for the mentally retarded.<sup>43</sup>

Collaboration between school psychologists and psychiatrists became essential as the number of children referred to school psychology offices increased. School psychiatric consultations were established as part of the school system, integrating psychological-pedagogical assistance into addressing children's problems. Simonsen and Lomholt,

42 Karen Simonsen, "Børnepsykiatrien i skolen," in *Sindshy-giejnens område og Børnepsykiatrien i skolen*, ed. G. Stürup and K. Simonsen (Copenhagen: Ejnar Munksgaards Forlag, 1943); Margrethe Lomholt, *Børnepsykiatri* (Copenhagen: Rosenkilde og Bagger, 1948).

43 Simonsen (1943), 38–39.

as pioneering child psychiatrists, influenced the discourse on giftedness and child psychiatry's role in education, emphasising the importance of understanding both biological and psychological factors.

During the 1930s–1960s, there was a dual focus on nurturing individual children's well-being and expanding special educational facilities for students deemed problematic. This expansion included the establishment of observation colonies, which served as quiet havens where children were observed to determine their future placement in the school system.<sup>44</sup> The colonies functioned as a form of special educational practice and played a central role in the securitisation of education, allowing for thorough observation and treatment when outpatient examinations were insufficient.

The Psychotechnical Institute, established in 1929, was significant in the special educational strategy in Copenhagen. Its main task was to conduct psychotechnical examinations of apprentices, office trainees, and civil service applicants. These examinations played a role in public debates on schooling and talent, contributing to the separation of academically and manually gifted individuals. The institute's focus on psychotechnics and psychological examinations was based on applied and experimental psychology, furthering the psychologisation of giftedness and the measurement of talent.

By the late 1950s, governmental concern shifted towards integrating less gifted students into the workforce, as reflected in the Ministry of Education's strategy papers. Psychotechnical tests were recommended for all young people leaving auxiliary schools to assess their suitability for the labour market. This distinction between practical and academic giftedness shaped the construction of personality types deemed important for the Danish welfare state. Although the Psychotechnical Institute closed in 1960, and psychotechnical testing was later problematised, its legacy in shaping societal distinctions in giftedness remained.

Overall, the post-war period saw the expansion of school psychology, psychiatry, and psychotechnics as tools for optimising giftedness and addressing the diverse needs of students, significantly influencing the educational system and the broader welfare state.

Biological optimisation took different forms through scientific discourses such as psychology, psychiatry and psychotechnics, each of which established new technologies in the relationship between the student, the schooling system and the welfare state. We argue that these forms of intervention through the biologisms contributed to establishing an individual-oriented view, as they stressed the importance of optimising giftedness and argued for singling out individual students for special educational purposes or similar institutions.

The different types of discourses, institutions and forms of practice employ, in our understanding, different biologisms. Psychology has, for example, contributed to the naturalisation of intelligence, which everyone possesses to a greater or lesser extent, and despite other parallel understandings such as child psychology, intelligence testing reflects a biologism in the understanding of human giftedness. Psychiatry, increasingly used in collaboration with schools, teachers and psychologists, offers diagnostic understandings of schoolchildren's problems, using sociological framings such as “environ-

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44 Hamre (2025b).

mental reaction”<sup>45</sup> but frames children’s problems as diagnostic issues, contributing to a perception of these problems as biological. Psychiatry has moved from prevention and symptom treatment towards an actual treatment practice through the establishment of child psychiatric clinics at hospitals. Even though eugenicist beliefs decreased in the postwar period, diagnosing was an important tool in special educational practices and, thus, in the securitisation of the schooling system. Finally, the Psychotechnical Institute, through its testing and measurement of students’ bodies and motor skills, used technology and scientification in the interpretation of understandings of ability/disability through biological arguments. Due to the state’s desire for optimisation, giftedness was further differentiated, as was the idea of being an ideal student or useful in the welfare state’s future workforce.

### Contemporary case

In October 2021, the concept of “highly gifted students” was formally integrated into Danish education policy through the “Agreement on the Future Evaluation and Assessment System in Primary Schools.”<sup>46</sup> This policy shift represents a significant change in how gifted students are identified and supported within Denmark’s public education system, marking a notable expansion in the use of IQ testing as a tool for educational practice. Since August 2024, all primary schools have been required to implement screening procedures designed to identify gifted first-grade students. The objective is to develop tailored educational strategies that meet these students’ needs. Consequently, a checklist containing some 21 questions for pedagogical personnel along with a 9-question questionnaire for parents and an 8-question questionnaire for first-grade students have been developed by the Ministry for Education.<sup>47</sup> Together, this material forms the basis of the initial screening. According to the new legislation, a recognised IQ test (e.g. WISC-IV) should be used to determine whether a child is gifted. The act stipulates that:

[...] the screening must be conducted in the 1st or 2nd grade, as early identification of the target group is crucial. [...] It should be noted that in this context, highly gifted students are defined as those with an intelligence quotient above 120. This means that the definition includes both highly gifted students (students with an intelligence quotient above 130) and students with special abilities.<sup>48</sup>

Initially, the 2021 political agreement recommended that 10–15 per cent of first-grade students be referred for IQ testing with the Pedagogical Psychological Counselling (PPR) office. However, in March 2024, the agreement was revised, granting school principals the discretion to determine whether IQ testing should be applied. This

45 Hamre (2023); Bjørn F. Hamre, “Observationskolonier set gennem elevrapporter – interventionspraksis i en skandinavisk velfærdsstat,” in *Nye stemmer i norsk utdanningshistorie. Fra 1800-tallets nasjonalisme til vår tids usamtidige utdanningsreformer*, ed. Henrik Edgren and Brit Marie Hovland (Cappelen Damm Akademisk, 2025b), 145–163.

46 Danish Ministry for Children and Education (2021).

47 “Test,” EMU, <https://emu.dk/test-og-evalueringsbank/test> (accessed 23 Oct. 25).

48 Remarks to Bill no. L 174, April 27 2022, 11 (our translation), [https://www.folketingstidende.dk/samling/20211/lovforslag/L174/20211\\_L174\\_som\\_fremsat.pdf](https://www.folketingstidende.dk/samling/20211/lovforslag/L174/20211_L174_som_fremsat.pdf). (accessed 23 Oct. 25).

adjustment aims to optimise resource allocation within the PPR and eliminate what was identified as an “unnecessary procedural requirement.”<sup>49</sup>

Despite these significant policy changes, Jakobsen underscores a critical lack of independent research-based evidence supporting the new legislation. Instead, the impetus behind these innovations in Danish public education appears to stem from a confluence of socio-political factors.<sup>50</sup>

Over recent decades, Danish political discourse has increasingly been shaped by what political scientist Ove Kaj Pedersen has termed the “competition state,” a concept that describes Denmark’s transition from a welfare state to one focused on global competitiveness.<sup>51</sup> This concept aligns with the logic of the optimisation dispositive, which aims to optimise the prosperity of the state as well as the talents of the individual. In the realm of education, Imsen et al. observe a discernible shift in values from prioritising the “equality and participatory democracy” characteristic of the welfare state to emphasising “competition and labour market preparedness” (p. 571).<sup>52</sup> This ideological shift underscores the need to harness all available human resources, including the capabilities of highly gifted students, aligning with a vision of Denmark as a knowledge society where education policies are instrumental in enhancing national competitiveness. Although it has been dormant for decades, the historical antecedents of this discourse can be traced to the 1945 youth commission led by Professor Hal Koch, which highlighted the disparity between the intellectual potential of youth and the resultant outcome; 10–20 per cent of the generation had an IQ above 115, but a mere 5 per cent completed higher education.<sup>53</sup>

49 Danish Ministry for Children and Education, “Aftale mellem regeringen (Socialdemokratiet, Venstre og Moderaterne) og Liberal Alliance, Det Konservative Folkeparti, Radikale Venstre og Dansk Folkeparti om folkeskolens kvalitetsprogram – frihed og fordybelse,” March 19, 2024, <https://www.uvm.dk/-/media/filer/uvm/aktuelt/pdf24/mar/240320-aftale-om-folkeskolens-kvalitetsprogram-%E2%80%93-frihed-og-fordybelse.pdf>

50 Thomas Køier Jakobsen, “Folkeskolens rammebetingelser – et policystudie om det styrkede fokus på højt begavede elever og implikationerne af dette for skoleledelsen” (Master’s Thesis, Aalborg University, 2024).

51 Ove Kaj Pedersen, *Konkurrencestaten* (Copenhagen: Hans Reitzels Forlag, 2011). Moreover, as Krejsler highlights in his analysis of OECD policy recommendations, multilateral surveillance mechanisms, understood as “a multitude of state authorities, working together, have agreed to formulate a set of ‘rules of the game,’ best practices and norms for appropriate behaviour” derive rhetorical legitimacy from the fear of falling behind. This reflects a strategic development narrative about world order, asserting that education systems risk losing both national and global competitiveness if they do not optimise human capital – essentially, by producing “employable” or “career-ready” individuals who contribute to the economy; Martin Marcussen, “Multilateral Surveillance and the OECD: Playing the Idea Game,” in *The OECD and European Welfare States*, ed. Klaus Armington and Michelle Beyeler (Cheltenham, UK: Edward Elgar Publishing, 2004), 13–31; John Benedicto Krejsler, “How a European ‘Fear of Falling Behind’ Discourse Co-Produces Global Standards: Exploring the Inbound and Outbound Performativity of the Transnational Turn in European Education Policy,” in *The OECD’s Historical Rise in Education: The Formation of a Global Governing Complex*, ed. Christian Ydesen (Cham: Palgrave Macmillan, 2019), 245–67.

52 Gunn Imsen, Ulf Blossing, and Leif Moos, “Reshaping the Nordic Education Model in an Era of Efficiency. Changes in the Comprehensive School Project in Denmark, Norway, and Sweden since the Millennium,” *Scandinavian Journal of Educational Research* 61, no. 5, 568–83. doi:10.1080/00313831.2016.1172502.

53 Alf Hans Sode-Madsen, *Farlig Ungdom: Samfundet, ungdommen og ungdomskommissionen 1945–1970* (Aarhus: Aarhus University Press, 2003); Ydesen (2011).

Another contributing factor can be found in the growing trend of viewing children as “parental projects,” reflecting the increasing individualisation of education.<sup>54</sup> This trend is accompanied by a substantial rise in the diagnosis of various conditions among children, including learning disabilities, ADHD, and autism spectrum disorders, which has added considerable complexity to the educational landscape. The recent increase in parents advocating for their children to be identified as gifted is a manifestation of this trend, further evidenced by the surge in diagnoses of giftedness and the proliferation of private schools specialising in gifted education.

Furthermore, large organisations such as “Gifted Children,”<sup>55</sup> which has over 4,000 members, *Begavet med Glæde*,<sup>56</sup> and the “Gifted Institute”<sup>57</sup> have emerged as key players in the Danish education landscape, providing support and resources for highly gifted children and their families. These organisations also serve as advocacy groups and policy brokers, striving for enhanced recognition and resources for gifted students.<sup>58</sup> Finally, pedagogical and parental concern for student well-being and the need to provide appropriate educational opportunities for all students remain central to the discourse on gifted education.

These developments elucidate the growing awareness and recognition of the unique needs and potential of highly gifted children in Danish society. The shift is also nourished by an acknowledgement that gifted children have historically been overlooked and seeks to address this gap through targeted educational policies and support structures.

The historical case analyses presented earlier in this article highlight a significant contrast with the contemporary application of IQ tests, which now extend to a broader student population and serve new purposes. Despite this evolution, the testing regime remains deeply embedded in bell-curve thinking. However, the focus of the optimisation framework, which operates at both societal and pedagogical levels, has shifted to the opposite end of the bell curve – specifically, towards gifted students. The renewed emphasis on IQ testing becomes particularly noteworthy when considering the writings of Kaj Aage Spelling (1915–1994), a former educational psychologist and professor at the Royal Danish School of Education. Spelling later expressed profound regret over his earlier involvement with IQ testing, underscoring the complexities and ethical considerations surrounding its use:

The worst aberration of intelligence research and theories was the IQ [test]. I admit that I have calculated thousands of IQs in the past, but today, I regret every single one of them if they were used for the evaluation of a child . . . The IQ [test] was a dangerous weed in the garden of pedagogical psychology.<sup>59</sup>

54 Annette Lareau, *Unequal Childhoods: Class, Race, and Family Life* (Berkeley: University of California Press, 2012), <https://doi.org/10.1525/9780520949904>; Katherine S. Newman, *The Accordion Family: Boomerang Kids, Anxious Parents, and the Private Toll of Global Competition* (Boston: Beacon Press, 2012).

55 <https://giftedchildren.dk>. (accessed 23 Oct. 25).

56 <https://begavetmedglaede.dk>. (accessed 23 Oct. 25).

57 <https://gifted-institute.com/da/>. (accessed 23 Oct. 25).

58 Jakobsen (2024).

59 Kaj Spelling, “Intelligensbegrebet under lup,” *Psykologisk Pædagogisk Rådgivning* 4 (1992), 256–71.

Spelling's anguished reflection epitomises the disillusionment within the educational community and the intense criticism directed at various forms of educational testing, particularly IQ testing, in Denmark from the late 1960s through the 1990s.<sup>60</sup> While earlier sections have detailed the societal and sociological developments driving the shift towards IQ testing for giftedness, it is also important to note that organisational changes in the 1990s played a role. Market-oriented policies, such as free school choice and "taximeter regulation" (where school funding follows the individual student), facilitated the structural individualisation of education.<sup>61</sup>

Another significant factor contributing to the current challenges in Danish education is the stalled progress of inclusive education. Initially, the concept gained prominence with a 2012 law aimed at reducing the segregation of students with special needs.<sup>62</sup> This law established an ambitious inclusion target, mandating that 96 per cent of all students should be integrated into the ordinary *Folkeskole*. This goal was integral to broader school reforms that positioned inclusive education as a central objective. Consequently, Danish public schools were tasked with creating more inclusive learning environments to accommodate students with special needs within mainstream classrooms. However, this shift led to significant reductions in special education services, which, while reducing costs for local education authorities, did not lead to the provision of additional resources for mainstream education to support the new demands of inclusive education.<sup>63</sup> This has made inclusive education unpopular among some parents of mainstream education pupils, as evidenced in numerous debates on social media.

Although the 96 per cent inclusion target was officially abandoned in 2016, inclusive education in Denmark is now widely regarded as a failure.<sup>64</sup> Since the reform, the number of students labelled as having "special needs" has continued to rise, reversing progress and causing a return to pre-reform levels of special provision. This regression has placed increased financial strain on many public schools. As Rasmus Edelberg, chairperson of the Danish national interest organisation *Skole og Forældre* (School and Parents), observes:

60 Bendixen (2006). It is significant that the Danish national broadcasting corporation, Danmarks Radio, aired at least four critical documentaries on intelligence testing around 1970. These documentaries included *Sviger Samfundet Problembørnene?* (Are Problem Children Let Down by Society?), broadcast on November 26, 1969; *Kontakt* (Contact), broadcast on October 19, 1970; *Når Intelligens Bli'r et Problem* (When Intelligence Becomes a Problem), broadcast on March 23, 1971; and *Den Meningsløse Intelligens* (The Meaningless Intelligence), broadcast on October 25 and again on November 2, 1971. Notably, prior to this period, no documentaries on this subject had been aired in Denmark. Ydesen (2011).

61 Christian Ydesen, "Globalization and Localization in the Shaping of the Danish Public Education System – Discursive Struggles in Four Historical Educational Reforms," in *Globalization and Localization: A Euro-Asia Dialogue on 21<sup>st</sup>-Century Competency-Based Curriculum Reforms*, ed. W. Zhao and D. Tröhler (Cham: Springer International Publishing, 2021), 85–109, [https://doi.org/10.1007/978-981-16-3009-5\\_5](https://doi.org/10.1007/978-981-16-3009-5_5).

62 Hamre (2018).

63 Thomas Engsig and Christopher Johnstone, "Is There Something Rotten in the State of Denmark? The Paradoxical Policies of Inclusive Education – Lessons from Denmark," *International Journal of Inclusive Education* 19, no. 5 (2015), 469–86.

64 Mathilde Weirsøe, "Inklusionen er dumpet – så hvad nu?" *Asterisk*, November, 2021, <https://dpu.au.dk/asterisk/asterisk-99/inklusionen-er-dumpet-saa-hvad-nu>.

When the budget is exceeded in special education, which 75 municipalities have experienced, the additional spending in approximately half of the municipalities is typically covered through cutbacks in the school's own budget. This means that a lack of funding affects all children and makes it very difficult for schools to undertake preventive efforts that could reduce segregation and strengthen broader communities in mainstream environments.<sup>65</sup>

These developments have tarnished the reputation of inclusive education and fuelled a growing demand for individualised educational solutions. The recent focus on gifted education reflects this trend. It is also a manifestation of the reinvoication of the optimisation dispositive, which emphasises seemingly objective biological traits as determinants of identity and educational provision. The environment fostering this dispositive now benefits from social media, where like-minded individuals can easily congregate in echo chambers, reinforcing their views and perceptions. The giftedness community has a strong presence on social media, supported by advocacy organisations, certain politicians, and individuals associated with Mensa,<sup>66</sup> whose identities are closely tied to their IQ test scores. This community, often from the upper middle class, represents a resourceful segment of society, and their push for gifted education resonates with Tomlinson's observation about the persistent hierarchy and differentiation within education systems based on wealth and status.

The *Folkeskole*, as a core pillar of the universal Danish welfare state model, is now facing challenges that threaten its foundational principles and the social cohesion of society. In this context, the new emphasis on giftedness can be seen as an expression of both securitisation and discipline in new forms – aimed at maintaining social cohesion and maximising human resources for competitive purposes while also ensuring the survival of the *Folkeskole* as it navigates an increasingly individualised and fragmented educational landscape. In essence, this new approach represents the government's and the *Folkeskole*'s efforts to adapt to changing realities while retaining influence over the students shaped by Denmark's educational system.

## Concluding discussion

The shifting and reconfiguring biologistic ability paradigm in education, particularly within welfare state development, has played a pivotal role in shaping policies and practices related to giftedness, special education, and the broader conceptualisation of human capital optimisation. Across different historical periods, from the interwar era to contemporary times, the intersection of scientific knowledge, politics, and societal needs has continuously influenced how education systems address the public good. This concluding discussion synthesises key insights from three diachronic empirical analyses, exploring how biologistic frameworks have manifested and evolved while simultaneously impacting ideas of the public good within the context of welfare state development.

65 "Ny evaluering af inklusion: Investeringer er afgørende," *Skole og Forældre*, March 29, 2022. <https://www.skole-foraelldre.dk/nyheder/ny-evaluering-af-inklusion-investeringer-er-afgoerende>.

66 <https://mensa.dk>. (accessed 23 Oct. 25).

In the interwar period, Denmark witnessed the formalisation of educational psychology as a profession through the establishment of the Educational Psychology Study Commission in 1924. This commission, composed of prominent educational figures and backed by significant political support, was responsible for introducing IQ testing as a tool for optimising the allocation of human capital. IQ testing, particularly the Binet-Simon intelligence test, became a means of sorting students into different educational pathways, laying the foundation for both special education and vocational training.

The biologicistic underpinnings of this era's educational reforms reflect a broader societal preoccupation in which discipline, optimisation, and securitisation affected the perception of giftedness in the welfare state. Danish authorities, influenced by eugenic theories and international competition, emphasised the need to place individuals in roles suited to their abilities, lest societal resources be wasted. Educational psychology played a critical role in identifying "backward" children, who were subsequently funnelled into special education programs. This process of sorting students was justified by biologicistic assumptions about intelligence, which were seen as innate qualities that could be measured and categorised, securing the right placement of the students as future citizens.

The commission's work, bolstered by political figures like MP Vilhelm Rasmussen, highlights the strong connection between educational psychology and the emerging welfare state. The focus on standardising intelligence and vocational tests served a dual purpose: optimising the talents of the working class and ensuring that those who were less academically inclined could still contribute productively to society. In this context, the public good was defined in terms of maximising the efficiency and productivity of human capital while also realising pedagogical ideals about providing the right education provision for all students.

In the post-war era, the Danish education system experienced significant growth in the provision of special education, facilitated by the expanding influence of psychology and psychiatry. Leading school psychologists like Rasmus Jakobsen documented the increasing number of students referred to special education, with approximately 3,000 being assessed annually. This period marked the consolidation of various new practices, including the establishment of observation colonies and increased collaboration between school psychologists, child psychiatrists and the schooling system in general. These collaborations enforced the differentiation of students, securing the best possible optimisation of the individual and society.

The post-war era saw a continuation of biologicistic thinking but with a notable shift in focus. While earlier efforts were geared towards addressing students who fell behind, the post-war period introduced the notion of optimising giftedness. This shift reflects the changing priorities of the welfare state, which now sought to ensure that no talent was wasted. The introduction of psychiatric assessments and the establishment of child psychiatric clinics further entrenched the biologicistic framework, positioning children's mental and emotional problems as diagnostic issues that could be treated and managed through scientific intervention. Through the introduction of child and school psychiatry, the ability paradigm had been extended so that mental health increasingly became part of the normalisation and securitisation technologies. Diagnostic assessments gave new ways to interpret what it meant to be able and to be disabled from the perspective

of the schooling system. Psychiatric professionals extended the assessments introduced by educational psychology, as seen in the interwar case.

Importantly, the discourses surrounding giftedness and non-giftedness were framed within the broader optimisation dispositive, which operated at both societal and pedagogical levels. Special education was no longer confined to remedial classes but became an integral part of the welfare state's strategy to manage and optimise student abilities; thus, special education was not limited to a certain discourse or terminology but became an integral part of organising differentiation in the schooling system. The psychotechnical institute's focus on measuring motor skills and work potential also contributed to the broader goal of preparing students for their future roles in the workforce, reinforcing the notion that education should serve both individual and societal interests. The emergence and founding of special education, educational psychology and psychotechnical institutes demonstrate how the interplay between dispositives of optimisation and securitisation was legitimised through biologisms and psy-disciplines.

In recent decades, Danish education policy has undergone significant changes, most notably with the formal integration of the concept of "highly gifted students" into public education through the "Agreement on the Future Evaluation and Assessment System in Primary Schools" in 2021. This shift represents a resurgence of IQ testing, now focused on identifying and supporting gifted students from an early age. The new legislation mandates that all primary schools screen first-grade students for giftedness using a recognised IQ test, employing a specific threshold of 120 IQ points or above.

This renewed emphasis on giftedness can be understood as part of a broader socio-political shift toward the "competition state," a concept that reflects Denmark's transition from a welfare state focused on equality towards one that prioritises global competitiveness and the optimisation of the individual. In this new paradigm, education is increasingly seen as a tool for harnessing human capital to enhance national economic performance. As such, the identification and nurturing of gifted students align with the state's interest in optimising the talents of its citizens for the benefit of the collective. Politics of inclusion, in this perspective, plays the function of getting everybody on board with the securitisation technologies of the competition state.<sup>67</sup>

The rise of parental advocacy groups and private schools specialising in gifted education further highlights the individualisation of education in contemporary Denmark. This trend reflects the growing view of children as "parental projects" and underscores the increasing importance of diagnosing and categorising children based on perceived biological traits. The surge in diagnoses of learning disabilities, ADHD, and autism spectrum disorders adds complexity to the educational landscape, raising questions about how to balance individual needs with the public good. This hints at how diagnostic technologies legitimised through psy-disciplines contribute to the optimisation of the individual and the individualisation of giftedness.

Throughout the interwar, post-war, and contemporary periods, the biologistic ability paradigm has played a central role in shaping educational policies and practices in Denmark. In this diachronic analysis, we have seen how different key actors have shaped the biologistic ability paradigm. In the interwar period, the educational

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<sup>67</sup> Hamre (2018).

psychologist played the most important role in student testing. In the postwar case, child- and school psychiatrists increasingly impacted the examination and diagnosis of children. In the contemporary case, diagnosing and neuroscience seem to gain influence in the ability paradigm. The concept of optimisation, whether applied to the less gifted or the highly gifted, reflects a broader societal goal of maximising human capital for the collective benefit. This paradigm has manifested in various forms, from IQ testing and vocational assessments in the early twentieth century to the contemporary focus on identifying and nurturing giftedness.

At the same time, the shifting focus within this biologicistic framework – from managing the “backward” child to optimising the highly gifted – illustrates how ideas about the public good have evolved in response to changing societal needs, increasingly enforced through technologies of securitisation. In the interwar and post-war periods, the welfare state prioritised social cohesion and the efficient allocation of human resources, often through the lens of scientific testing and classification. In the contemporary era, the public good is increasingly defined by the state’s need to remain competitive on a global scale, with education serving as a means to cultivate the talents of individuals who can contribute to that goal.

In conclusion, the shifting and reconfiguring biologicistic ability paradigm has not only influenced how education systems sort and optimise students but has also shaped broader ideas about the public good within the context of welfare state development. As the welfare state continues to evolve, so too does the role of education in balancing individual needs with collective societal interests. Whether through IQ testing, special education, psychiatric diagnosing or the identification of gifted students, the interplay between biological knowledge and the public good remains a central concern in shaping the future of education.

### **About the authors**

Christian Ydesen holds the Chair in History of Education and Education Policy Analysis at the Department of Education, University of Zürich, Switzerland.  
Email: christian.ydesen@ife.uzh.ch

Bjørn F. Hamre is an Associate Professor of Education at the Section of Educational Studies, University of Copenhagen, Denmark.  
Email: hamre@hum.ku.dk

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