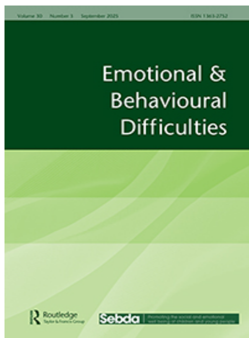

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Circular reasoning in diagnostic practices: a case study of how educational psychologists evaluate special needs

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ABSTRACT

The article reports a study of how Educational Psychologists (EPs) categorise the special needs of children in school, and the implications this work has for the decisions taken. In many countries, psychiatric categories play a key role in the school context, and they are often directly linked to the provision of support. However, in the Scandinavian welfare system, decisions on placement in special education should be taken on the basis of a professional assessment – no matter if the child has a diagnosis or not. The analyses of authentic reports by EPs show that in spite of this ideal, psychiatric categories play a central role, as they are often used as a point of departure for the professional assessment and the remedies suggested. It is noted as an important result that little or no attention is paid to the learning environment, even when the environment is explicitly recognised by the EPs as playing an important role in the challenges that students encounter. Continuing the long tradition of locating the problems inside the child has the unfortunate side-effect that it provides little incentive for schools to modify their instructional practices in contexts characterised by diversity in children's backgrounds and abilities to participate.

KEYWORDS
Special needs; diagnoses; diagnosing children; streaming in education; educational psychology; educational psychologists

1. Introduction

In many countries (the USA, England, etc.), psychiatric diagnoses such as Attention-Deficit Hyperactivity Disorder (ADHD), Autism spectrum disorder (ASD) and others are used in schools as categories directly linked to the provision of special educational support. This link between diagnoses and placement in special education differs from what is expected in the Scandinavian welfare model (Sweden, Norway and Denmark) with a comprehensive school, intended to serve as 'a school for all.' Taking Denmark as an example, the legislation prescribes that a professional assessment and evaluation of the special educational needs should be the grounds for referring a child to special education, no matter if the child has a diagnosis or not. This professional evaluation must also provide suggestions of how schooling should be organised to remedy the problems reported.

In the Danish system, such assessments are produced by educational psychologists (EPs). EPs are licenced psychologists who work in municipalities, and they serve the schools in their role as counsellors on issues of children's wellbeing. One of the tasks they are responsible for is evaluating if a particular child has special educational needs. So far, there is little research on how these assessments and evaluations are produced in a concrete sense, and what considerations are taken

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into account in this process which is so decisive for the school career of the student. In this study, we will analyse 35 authentic Educational Psychological Evaluations (EPEs) from six Danish municipalities. As supplemental data material, we have also conducted six-group interviews with three EPs in each of the six municipalities (a total of 18 EPs), and these interview data will also be drawn upon in the analysis. The following questions guide the analyses:

(a) How are school problems understood and categorised in the EPEs?
(b) What role does the use of tests and school observations play in the EPEs?
(c) How are the outcomes described in the EPEs linked to the educational remedies suggested?

1.1. Categorizing children: international comparisons

As a point of departure for the research to be reported here, it is interesting to note that many comparative studies have shown that there are considerable differences between countries with respect to how special needs are understood, categorised and attended to. This is one of the conclusions of the review by Keles, ten Braak, and Munthe (2022), where the authors point out that '[t]here are great differences (...) in the understanding and recognition of SEN [Special Educational Needs] across countries' (1). A similar lack of common standards can be observed with respect to the legal definitions and frameworks for these procedures, as is shown by Galletly, Allen Knight, and Dekkers (2010). These authors point out that"[t]here is currently considerable disagreement internationally about what is best practice for identification of children with special needs" (4). In a similar vein, an international review by Rix et al. (2013) of the practices and policies of different countries with respect to how special needs are examined and evaluated confirms such apparent differences between countries. The authors conclude that there seems to exist 'a lack of agreement about what "special" is', and it 'seemed evident that no two countries dealt with the issue of support for pupils with special educational needs in the same way' (388).

In countries where psychiatric diagnoses play an important role in understanding special needs, such categories will be used when decisions about the nature and extent of support for children with special needs are taken. As an example, the American school system has a formalised procedure for the evaluation of the need for specialised support. In this system, categories of specific disabilities are used to determine the special needs of students and they are therefore consequential for their right to support in school. According to 'The Individuals with Disabilities Education Act' (IDEA), students must, in order to have the right to receive special needs support, have a disability or deviance, listed in the legislative documents. The disability, furthermore, must hinder the child's ability to participate and learn in mainstream school to fall under the legal definition of a recognised 'special need' (US Department of Education 2024). Children can qualify for support under 13 different categories such as Visual Impairment, Speech Disorder, Autism, etc. Some of these categories are linked to specific psychiatric diagnoses (e.g. Autism), and in this sense a strong link is created between the psychiatric system and the provision of support in school.

Across the Scandinavian countries, however, the legal definitions and procedures for assigning special educational support do not make this direct connection between diagnoses and the provision of support in school as pointed out above. Instead, the evaluation of support is based on a professional assessment of the special educational needs of the child, no matter if the child has a psychiatric diagnosis or not. Typically, such evaluations are made by educational psychologists (EPs), which is the case in Denmark, where our empirical data have been generated. In the Danish context, the legal definitions state that if the school assumes that a child might need support, the matter must be referred to the professionals in the Educational-Psychological Counselling Services (EPCS) of the municipality. The task for the EPCS is to examine the child and to produce an Educational Psychological Evaluation (EPE). If the EPE concludes that the child has a 'special need', it is up to the school leader and the municipality to attend to the needs of the child in question and to implement relevant measures. The typical steps in this procedure are summarised in Figure 1 below.

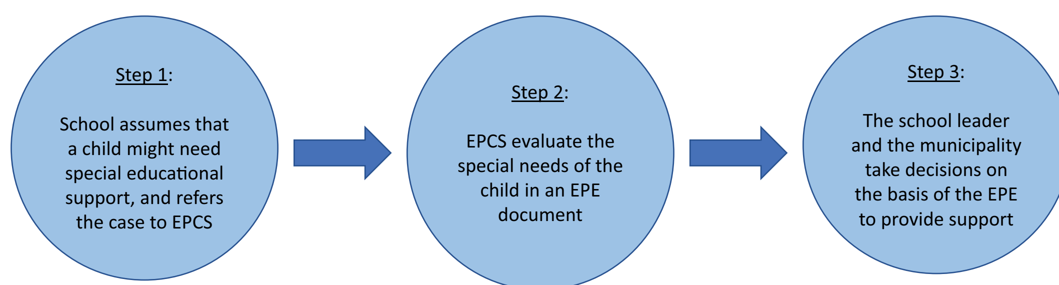

Figure 1. Steps in the referral and assessment procedure in Danish municipalities.

According to the Danish legislation, special educational needs are not defined by listing different types of disabilities, as is the case in the American IDEA-based list. Instead the Danish regulations imply that it is the *quantitative* need of support in school which is decisive: If the EP evaluates that the child needs 9 hours, or more, of support per week, this is defined as a need for special educational support. However, how this is done, and what an EPE should consist of, is described in a general and abstract way only, leaving considerable room for the EPCS to act. According to the legislation, it is a prerequisite before special educational support is provided that an EP specifies the needs in accordance with this general procedure of formulating the EPE so that it can serve as a guide for further decisions. Thus, the EPE as an institutional document plays an important role for children's school careers. This system of establishing whether a child should be provided with special needs education makes it interesting to investigate empirically how this type of assessment is produced, and what kinds of analyses and argumentation are typically provided and considered relevant.

2. Categorizing special needs: literature review and theoretical background

Theoretically, we are interested in the institutional categories used for articulating special needs. Educational needs are not natural entities that can be identified by the EPs in a neutral language; such categorisations are social constructions by means of which 'institutions think' (Douglas 1986) and organise their activities. By using institutionally sanctioned categories, children are 'transformed' into entities that the organisation can recognise and process (Lipsky 1980). Categories serve as resources guiding the decisions by professionals within welfare institutions, and they are consequential for children and their future.

Earlier studies have underscored the crucial impact that school psychologists and their professional vocabulary have for how students' problems are understood and responded to in the school system, including when it comes to issues such as allocation of resources, relocating the student to a special educational needs class, etc. A classic in this context is the study by Mehan, Hertweck, and Lee Meihls (1986), where the procedures of assigning children to special needs teaching in California were scrutinised. This included analysing the testing practices utilised by school psychologists, which in many ways are comparable to how Danish EPs work. Even some of the tests administered to students are the same, for instance, the widely used WISC-test of intelligence. Mehan and his colleagues found that, when referring a child to the school psychologists for examination, schools often describe the problems as rooted in a deficit of the individual child. Furthermore, according to the authors, the school psychologists often take this initial problem description made by the school as their point of departure when they decide how to proceed with their work. This practice had the effect that the results of the examination seldom challenged the initial understanding of the problems put forward by the school in the referral documents. Instead, the results most often reinforced the

understanding that the school had of the problem at hand (what the authors call a 'test until find-approach'):

> School psychologists administered tests until they located the disabilities that teachers had indicated by their original referral. When they 'found' verification of the referral reasons, they did not continue to administer educational tests in order to find discrepancies in the original formulation of the student; they just stopped testing. (101)

Mehan and colleagues argue that this mode of proceeding generally ends up by placing the difficulty inside the child. Furthermore, they find that in the work undertaken by the school psychologists there are no analyses of the teaching practices, the local conditions in the school or other circumstances around the child in question.

Hester (1991) studied such practices in the British school system, in which school psychologists also play a crucial role. In line with Mehan, Hertweck, and Lee Meihls (1986), Hester also found that the school psychologists do not question the initial referral descriptions which the schools have produced when referring the case to the school psychologists. As Hester puts it, 'the interpretative construction of these problems is not subjected to scrutiny.' Instead, the 'psychologist treats the teacher's descriptions as objective descriptions, as factual' (1991, 454). This means, that when representatives of the school describe that the cause of the observed problems is related to the individual child (for instance by providing accounts that categorise the child as likely to have 'outbursts of temper', to be 'completely lacking in self-control' or as being 'very aggressive towards other children') without including any details about the learning environment (457), the psychologists rely on these initial categorisations as points of departure for the continuation of the examination. In a later study, Hester (1998) analysed the tests and descriptions that school psychologists use in their investigations, the categorisations of children's problems used in their evaluations, and the use of these examinations in the referral processes. His analysis confirms the general finding that these procedures tend to place the problems identified within the children.

The types of individualising practices and procedures that Mehan et al. and Hester describe have a long history and have been observed from the beginning of mandatory schooling in the Scandinavian context as well (Säljö and Hjörne 2024). The circumstances around the child in the school environment, the teaching practices and the organisation of the classroom are most often not attended to when it comes to understanding the problems reported.

Our case material is from Denmark, and EPEs in this context have been investigated by Szulevicz and Arnfred (2022). Based on studies of 111 EPE documents from two Danish municipalities, they find that psychiatric diagnoses play a decisive role, and that the investigations mainly are focused on finding the individual deficiencies of the child which likely lie behind the problems. One interesting observation here is that according to the participating EPs, the reason for this pattern is that many of the EPEs will serve as a platform for further psychiatric investigation at the next level in the Child and Youth Psychiatry Services. Szulevicz and Arnfred also find that there is a remarkable similarity in the suggestions for educational support measures in the EPEs analysed in the sense that 'almost all of the EPEs recommend that with regard to educational measures, it is important to create a more structured learning environment around the child' (3). The authors argue that this seems to be a kind of 'standard advice', applicable to cases in a range of different circumstances.

Hygum and Bork (2022) investigated how Danish EPs conceive of and evaluate the production of EPEs. They conclude that to many EPs, the work with producing EPEs takes up so much of their time that it limits their capacities to engage in face-to-face counselling with the teachers and the children in the classrooms concerned. Furthermore, the authors point out that EPs find that EPEs often follow the tradition of individualising the problems at hand, and that EPs find it frustrating that the EPEs, once they have been written, generally do not play any constructive role in developing the educational practices in school.

3. Data and methods

Data for this study have been generated through institutional ethnographic fieldwork (Smith 2005). Data consist of 35 EPEs from six different Danish municipalities. In the analysis below, excerpts from these EPEs are written data. The data set consisting of EPEs is supplemented by group interviews (Kvale and Brinkmann 2015) with 3 EPs in each of the six municipalities (18 EPs in total). In the analysis below, excerpts from these group interviews are spoken language. Each group interview lasted 1,5 h, generating a total of 9 h audio recorded material, which has been transcribed *in extenso*. This material as well as the 35 EPEs were coded in accordance with our three research questions and analysed qualitatively. All names and places have been anonymised. All data have been gathered, stored and analysed in accordance with the European General Data Protection Regulations (2016).

4. Results

The results of the study will be described in four sub-sections. In 4.1, we will attend to our first research question of how special needs are described and categorised in the EPEs. We will split the answering of our second research question into two subsections: In Section 4.2. we will analyse the role that the use of psychometric tests plays in the EPEs, and in 4.3, we will analyse the role that classroom observations play in these documents. Finally, in 4.4, we will attend to our third research question of how the results of the EPEs are linked to educational remedies suggested in the reports. The article ends with a concluding discussion in Section 5.

4.1. How are children's special needs described and categorized in the EPEs?

As documents, the 35 EPEs have a common structure. They begin by stating the purpose of the investigation, which (in line with the legal definitions) is to evaluate if the child in question has a need for special educational support, and, should this be the case, to suggest how these needs can be met. As mentioned, the legal definition in Denmark is operationalised through the hours of educational support needed. If the child needs nine or more weekly hours of support (equal to 12 lessons of 45 minutes), this is defined as a need for special educational support. But how, and based on what, is this evaluation made? We will try to answer this question by analysing the EPEs and scrutinise how this need is decided on as a practical matter. In this analysis, we will also draw on the interviews with the EPs and use their accounts of what they are doing to shed further light on the material in the EPEs.

4.1.1. The starting point: the referral and the initial problem formulation from the school

As described in the background section, it is the school that initiates the process by asking the EPCS to make an examination and to produce an EPE. The main impression throughout the 35 EPEs is that the point of departure (and one of the preliminary formulations in the EPEs) is a short description of why the school decided to approach the EPCS. This formulation explains why the representatives of the school believe the examination should be made, and the formulations from the school are briefly summarised in most of the EPEs. In this sense, there is an obvious intertextuality between the two documents. The summary also serves as a bridge to explaining the measures that will be taken by the EP in the examination. Below is an example from an EPE report that sets out to examine if Jeff, a 6th grade boy, has special learning needs:

Excerpt 1.

> This EPE is made because of a referral from school, as it was evident in a meeting (. . .) that school as well as home experienced very low wellbeing. Therefore, it was deemed relevant to have the situation analysed, and to have the need for support evaluated. In order to clarify if Jeff's low well-being is related to his cognitive level, he has been tested with WISC-V. In connection with the testing, an interview has been held in order to clarify Jeff's view on the matter. In order to shed further light upon his self-image, the questionnaire BECK-Youth has been used. In

> order to investigate how he participates in social interplay with teachers and students, he has been observed in the classroom. (EPE no. 4 from Municipality 6, boy 6th grade, p. 1)

In the above excerpt, the symptom of the school problem (Jeff's low wellbeing) is mentioned, and three different hypotheses for this problem are formulated. These are:

(1) Is Jeff's low wellbeing due to a low cognitive level, causing him to have problems in following the learning activities in school? A WISC-test of intelligence will be informative to answering if this is the case.
(2) Is Jeff's low wellbeing due to a low self-esteem, causing him to feel unwell in school? An interview during which a BECK-Youth questionnaire is administered will assess symptoms of depression, anxiety, anger, disruptive behaviour, and self-concept, and will provide information if some of these traits are likely to lie behind the school problems.
(3) Is Jeff's low wellbeing due to difficulties in interacting with peers or in participating in collaborative activities in class? Classroom observations are undertaken in order to scrutinise his participation in classroom practices, and to examine if lack of social capacities (often taken as indications of Autism spectrum disorder) could lie behind the problems observed in school.

All of the causes suggested imply individualising Jeff's problems – they are assumed to be traits or difficulties of him as an individual child. In Section 4.3 we will demonstrate in further detail the character of the conclusions drawn and suggestions made, but in this case the EPE concludes that Jeff has serious disruptive symptoms, and that he needs special support. Based on the evaluation in the EPE, Jeff is moved from the mainstream classroom to a special education class.

Sometimes the referral formulation from the school is shorter, as in the following excerpt from a different EPE:

Excerpt 2.

> ... the parents, as well as the school, experience that Thomas to a large degree has many behavioural characteristics comparable to those that you see in children diagnosed with pervasive developmental disorder. [Autism spectrum disorder] (EPE no. 3 from Municipality 3, boy 5th grade, p. 4)

Here, the possible cause is presented as much more evident and unambiguous. The initial comments in the EPE report observations from the parents and the school which are presented as symptoms pointing in a specific direction, namely that Thomas' school problems may be indicative of a developmental disorder (Autism spectrum disorder). This hypothesis, originating from the parents and the school, is assessed mainly through the ASRS (Autism Spectrum Rating Scale) that rates the occurrence of symptoms of Autism Spectrum Disorder. In this case, the ASRS indicates the presence of such symptoms, and Thomas' case is referred to further psychiatric investigation in the Children and Youth Psychiatric Clinic. Thus, a straight line can be found from the initial formulation in the referral to the testing undertaken by the EP and, as a next step, to the decision to refer the case to the psychiatric clinic. The strategy of individualising the problems is obvious, as the EPE does not include any observations from Thomas' mainstream school classroom or the general learning environment, which could have clarified if there are any problems in the teaching practices, nor are Thomas' relations to his peers or other factors attended to. The point here is not to suggest that classroom conditions or other factors determine Thomas' behaviours. Rather, the point is that the EPE as a document does not provide any observations of the classroom activities, the wider school environment or other circumstances that may be relevant to include in the considerations – such circumstances are left out of the picture.

In almost all the 35 EPEs, it is obvious that the starting point for the continued work is the problem description in the referral, which typically focuses on the child in isolation as the *locus* of the difficulties at hand. In some instances, there is a brief reference to the learning environment. We will return to the role of classroom observations in further detail in Section 4.3. In some instances, an interview with the child is included in the investigation, most often on the basis of a structured

instrument such as the BECK-Youth questionnaire. We will return to the use of different kinds of tests in Section 4.2. An interesting observation in both of the excerpts above is that the suggestions which are put forward in the preliminary descriptions that instigate the process are already formulated in a diagnostic vocabulary in the sense that the question put is if Jeff's low wellbeing is related to his cognitive level (EPE no. 4 from Municipality 6, boy 6th grade, p. 1). In the case of Thomas, he allegedly has many behavioural characteristics comparable to those that you see in children diagnosed with pervasive developmental disorder (EPE no. 3 from Municipality 3, boy 5th grade, p. 4). The point of departure in most of the EPEs, therefore, is not an open-ended analysis of the school situation and how Jeff and Thomas cope with challenges in the local circumstances. Rather, the reporting follows the established institutional tradition of individualising the problems by focusing on specific features of the child and his/her behaviour. In addition, the voice of a diagnostic vocabulary is obvious. It is clear that the psychiatric categories in this way play a role as accounts (Scott and Lyman 1968), i. e. as types of possible explanations for the problems that children may have, and these are zoomed in already when the assessment procedure starts. In this way, the diagnostic vocabulary stands out as a very central part of the toolkit that EPs make use of in the EPEs and as a vehicle of communication throughout the process. It is a language that resonates with everyday, institutional and professional understandings of how the problems should be interpreted.

4.2. The role of testing

As we have seen above, it is common in the EPEs that the introduction contains a short description of the battery of tests, interviews, rating scales and observations that the EP has used for the psychological examination. In most cases, as we also pointed out above, these decisions of how to proceed seem closely related to the initial problem formulations provided by school. Across the 35 EPEs, there is a pattern of recurring tests and rating scales which are used in the examination as can be seen in Table 1.

The tests are given in a controlled setting supervised by the EP (typically in a separate room at the school of the child examined). The rating scales are generally distributed by the EP to teachers and parents, who fill them in and return them to the EP, who then calculates scores. If interviews are included (9 of 35 EPEs), these are typically conducted through structured guidelines and often focusing on reporting the occurrence of diagnostic behaviour.

4.2.1. The specification of the kind of special needs emerging from test results

It is obvious from the list that the most typical tests deployed, and therefore the most typical hypotheses about the causes of children's school problems, relate to intelligence, ADHD and Autism spectrum disorder. Diagnostic vocabulary is used to specify the problem at hand in a number of ways. In many of the EPEs, a number of varied psychiatric diagnoses are used as categories pointing to specific kinds of special support needs. Interpreting rating scale results, it may be concluded that Christian has symptoms of Autism … (EPE 1 from Municipality 3, boy from kindergarten). The argumentation can also be formulated as recommendations that the child needs a diagnosis-specific kind of support, such as Caroline needs to be supported with ADHD specific pedagogy … (EPE 4 from Municipality 3, girl 9th grade), or It is overall recommended, that Thomas in his everyday in general is met with an Autism-oriented approach (EPE 3 from Municipality 3, boy 5th grade), or It is recommended (…) that Noah is taught based on ADHD-pedagogy (EPE 1 from Municipality 1, boy

Table 1. Tests frequently referred to in the EPEs ($n = 35$).

Test	Frequency
WISC test of intelligence (or an alternative version used for preschool children)	26 of 35
BRIEF rating scale of executive functions (might indicate general learning disabilities, ADHD etc.)	15 of 35
SRS test of social responsiveness (might indicate Autism spectrum disorder)	10 of 35

5th grade). It is obvious that the diagnoses here serve as explanations of the causes of the problems at hand, which is also expressed by the interviewed EPs:

Excerpt 3.

. . . if we write, for instance, that we believe that this child needs an autism-oriented educational approach, I also think that we indirectly comment on the aetiology [cause of the symptoms]. (EP 3, Municipality 2, February 2024, 14)

The categorisation of a certain kind of special educational need can also be based on the evaluation of the child's abilities in terms of an age-specific developmental norm in a test or screening tool, for instance, the test shows that Robert's ability to understand language is not age-appropriate, and Based on the test, Robert is evaluated to be lagging behind 1–2 years across most of the developmental areas (EPE 1 from Municipality 3, boy from kindergarten).

To sum up in short: Across the EPEs, the tests play a central role to confirm and further detail the explanatory hypotheses presented in the EPEs.

4.3. The role played by observations of the learning environment and school context in EPEs

As we mentioned in Section 4.1, an important and interesting observation in our material is that the school context and the learning environment rarely are in focus when school-related problems are described and examined in the EPEs. In many cases, no observations in school have been made. Table 2 sums up the frequencies of how many of the EPEs include some sort of school observations.

As can be seen, in 17 of the 35 EPEs there are no observations of what happens in the school context. Furthermore, in 3 of the 35, it is stated that the school context as a part of the examination has been observed, but there is no further information on how these observations contributed to the assessment documented in the EPE. This gives a total of 20 out of 35 cases (57%), where the conclusions of the EPE are based solely on the outcomes of the psychological testing and the rating scales.

In 11 of the 35 EPEs, observations of the school environment are included in the EPE. However, in these 11 cases, the information reported focuses exclusively on the singular child, and typically in a form where diagnostic behaviours are confirmed. The following excerpt is a typical example:

Excerpt 4

He appears to be easily distracted, restless and impulsive. (EPE 4 from Municipality 6, p. 2)

This excerpt concerns Jeff (cf. Excerpt 1 and Excerpt 5), who has been found to display disruptive behaviour in class. The comment in Excerpt 4 supplements the test results from the BECK-Youth questionnaire used to measure symptoms of disruptive behaviour. It confirms the hypothesis that Jeff's school problems are due to his lack of ability to participate in school activities, and in social activities more generally, as he is observed to be easily distracted, restless and impulsive – claims which are all recognised symptoms of the ADHD diagnosis. It seems to be a clear-cut case: Jeff's school problems are explained by his disruptive behaviours and these are recognisable as symptoms of the ADHD diagnosis, and the voice of the diagnostic vocabulary is evident in Excerpt 4. However, when interviewed, the EP who has produced this statement argues that Jeff's low wellbeing

Table 2. Frequency of school observations in the EPEs ($n = 35$).

No school observations included	17 of 35
School observations made, but not described or referred to	3 of 35
School observations made, but solely focused on one child	11 of 35
Observations of the learning environment	4 of 35

emerged at a specific time, namely when the school structure was altered. The EP also argues that his problems appeared in part because the structure was altered:

Excerpt 5.

> I have been attending to this child earlier, but back then he felt much better. (. . .) At that time, it was a smaller class with 15–16 pupils, I think, and then it was merged with another class, making a new class of 28 pupils. And he does not thrive in that. (. . .) And I end up evaluating that he would actually be better off in a special classroom . . . (EP 2, Municipality 6, February 2024, p. 16)

However, this reflection on the impact and consequentiality of the change from a small to a larger class is not included in the EPE as a relevant observation to pay attention to, rather it is filtered out. The BECK-Youth questionnaire, indicating that Jeff has clear symptoms of disruptive behaviours, and the child-focused classroom observation showing symptoms of ADHD-behaviour, place the problems firmly and unequivocally in him as an individual. This, in turn, is consequential for the solution, which is that Jeff is taken out of the mainstream classroom. No alternative suggestions are formulated, for instance, pointing out to the school management that the decision to merge the two smaller classes to one large class should be reconsidered, or, for instance, that an extra part-time teacher during a brief period of transition would make it possible to work in a smaller group in order to prepare Jeff for the larger class. Instead, the conclusion is to take Jeff out of the mainstream classroom.

Considering that the large bulk of the analyses in the EPs follows this line of reasoning, it is interesting to ask why information of this kind is left out? Based on our material, there seem to be two main elements behind this. These are i) the psychologist's assumptions of the economic and other resources available, and ii) the tools that EPs have at their disposal:

i) According to the EPs who participate in the group interviews, they know that the financial situation of the school plays a crucial role for how the conclusions pointed to in the EPEs will be responded to. The funding schemes of many Danish municipalities imply that a school is responsible for handling resources within mainstream classrooms. However, if a pupil is referred to a special class or special school, the municipality will cover the costs for this (Tegtmejer 2022; Lindeberg et al. 2022). This means that when the representatives of a school ask an EP to evaluate a school-related problem, and if the EP concludes that the problems are consequences of a learning environment that needs to be improved, the school will have to pay for any in-class measures which may be suggested (extra teacher support, fewer children in each classroom, etc.). Thus, if the EP in Jeff's EPE would have argued for extra teacher support or some other resources, these costs would have to be carried by the school. On the other hand, if the EP concludes that the problems are rooted in extensive behavioural or cognitive problems of the child, and that the child needs the legally stipulated number of hours of extra teaching, it is the municipality which takes over the extra costs. The EP who examined Jeff explains the logic of the situation in the following excerpt, and explains why she does not recommend that the school should roll back the decision and go back to two smaller classes (or take any other measure to prepare Jeff for the new situation):

Excerpt 6

> Well, I could think that it would be nice if they divided the class. But I am not the one who is paying for it. The problem is, that if we produce recommendations about how they should be doing (. . .), then we would create problems for the school leader, if we make financially expensive recommendations . . . (EP 2, Municipality 6, February 2024, p. 25)

ii) According to the participating EPs, the tendency of filtering out the school environment as a valid issue to consider can also be understood when considering the tools which are at the disposal of the EPs when they produce an EPE. The tests and rating scales used for describing the child are all very detailed, and use numerical values for communicating results, sometimes through spreadsheets across several pages displaying the scores of the child on various items/tests. And, as we pointed to above, most of the time that an EP uses examining a child is spent on testing, and much less on

observations and interviews, if such elements are included at all. The test results, when combined with the professional authority of the psychologist responsible for the examination, are precise and easy to communicate in terms of high and low scores. Neither school staff nor parents, are able to raise questions on the relevance of these results. In comparison, the observations from the classroom are formulated in everyday language and without any guidelines as to how differences of significance should be formulated. Thus, the numerical line of argumentation used in testing, avoiding concrete and contextual observations of the child, is considered more functional in this particular institutional setting. EP 3, below, reflects on the differences in these types of information. He argues that it is a prominent part of the professional training of psychologists to examine children using psychometric tests and rating scales. As a profession, however, psychologists do not receive any training in how to observe and analyse learning environments in school contexts.

Excerpt 7.

> [The choices of tests and descriptions depend on] what we have been trained to do. I have never learned to observe, and I have been a psychologist for a 100 years (EP 3, Municipality 2, February 2024, p. 25)

Thus, and to sum up, what is clear is that when indicators which have to do with the learning environment are neglected or disregarded through the process and in the EPE, the effect is that they are given little weight in the decision-making, and, as a consequence, the problems are placed in the child. This implies, that the school, the school climate, the teaching practices, the resources and other contextual elements are left out of the picture. An even more obvious way of disregarding the school context is that in many cases no observations take place. Several EPs confirm this general picture, and some of them explain that they rarely spend much time in the school environment, or simply do not go there at all except when picking up the child and taking him/her to the room where the testing will take place. As two of the EPs express it, *I barely take a look at the school environment* (EP 1, Municipality 5 March 2024, p. 2), and *Sometimes, if you have seen enough [in the classroom] in a five minutes time, you would just leave again* (EP 3, Municipality 5 March 2024, p. 2).

4.3.1. The EPEs including classroom descriptions

Four of the 35 EPEs differ from the general pattern described so far. These four EPEs contain detailed descriptions of the learning environment. As counter-examples to the general trend, these EPEs are highly interesting when considering the role of contextual information in the decision-making process. The following example from one of these EPEs is illustrative:

Excerpt 8

> The teachers are trying to motivate her by offering her several different options and then ask in a broad fashion: 'What do you want to do?' Mary reacts at first by not answering, and then by becoming increasingly challenging towards the teachers (cutting in pencils with a pair of scissors, putting glue on the table, throwing folders and threatening to throw a ceramic figure). (EPE 3 from Municipality 6, girl 2nd grade, p.5)

According to the EP, observations of this kind are informative and relevant in the sense that they give some insight into what the teacher can do to simplify Mary's situation in the classroom and how the learning environment could be adjusted:

Excerpt 9

> . . . she is left with many choices with respect to what school tasks she wants to do, but she cannot make a choice. She reacts by becoming more and more challenging in her behaviour. In order to calm her nervous system down it is important, among other things, to remove the responsibility to choose, even if this is well intended. Give her maximum two easily recognizable options, preferably visually presented to her. (Ibid., p.7)

The four EPEs which include detailed descriptions of the learning environment are interesting in the sense that they point to possible ways of restructuring concrete elements in classroom practices. In this specific case, the suggestion offered in the EPE is that there is a mismatch between Mary's

capacities of handling situations which involve choosing between many alternatives and the way the teaching is organised. Reducing the number of choices she has to make in a systematic manner, will, according to this evaluation by the EP, relieve her of a burden that is challenging for her. Even if self-directed learning of this kind is an important goal in schooling, the observation by the EP may be taken as an indication that Mary has not yet learned how to do this. Thus, and from a developmental point of view, her problems of handling choices may not necessarily be indicative of a constitutional dysfunction, but rather of something she has not yet learned to master.

4.3.2. Short and category specific educational recommendations

If we compare the argumentation in those four EPEs which contain detailed descriptions of the school environment to the recommendations in the large bulk of the EPEs, there is an obvious difference. In the 31 out of the 35 EPEs which do not include descriptions of classroom activities, the educational advice is often formulated very briefly and in short bullets in the section of the EPE containing recommendations. Examples of such recommendations are:

- Clearly structured school day (EPE 2 from Municipality 1, boy 5th grade).
- The cognitive test indicates that he profits from visual support and concrete materials. He benefits from having the materials in his hands (EPE 5 from Municipality 3, boy 2th grade).
- A high degree of structure, predictability and clarity (EPE 7 from Municipality 2, boy 5th grade).

Furthermore, and along the same lines, in 14 of the EPEs the diagnostic vocabulary is in an explicit manner used to make a direct connection to a certain type of support, which is described as diagnose-specific. For instance: Mette needs to be supported with particularly ADHD specific pedagogy (EPE 3 from Municipality 2), or It is overall recommended that Thomas in his everyday school day in general is met with an autism-oriented educational approach (EPE 1 from Municipality 1). Here, the diagnoses indicated in the tests even serve as labels to designate certain types of educational measures to be taken as if the needs of diagnosed children are the same and follow from the diagnosis. However, children with for instance ADHD or Autism spectrum disorder are very different in many respects as these diagnoses are broad and multi-dimensional, and children with the same diagnosis may very well have different needs of instructional support.

The logic of these kinds of recommendations follows from the results of the tests and rating scales in the investigations. If the results of, for instance, a BRIEF-test ('Behaviour Rating Inventory of Executive Function'), indicate that the child has problems in organising tasks, the recommendations will conclude that the teachers should work with a more structured approach in terms of how to organise tasks. Such general and category-predicated claims are very different from the ones offered by the psychologist in excerpts 7 and 8 in the sense that the latter point to concrete and detailed interventions that the teacher can make in specific situations in the context of challenges for a specific child in teaching practices.

Summing up, it is obvious in the large bulk of EPEs that the structure and argumentation are closely linked to diagnoses, rather than to analyses of the learning environment, social relationships or other factors. As we saw, such diagnoses typically are indicated already in the initiation process from the schools, and they are generally confirmed in the conclusions of the EPEs and linked to recommendations. This line of reasoning contrasts with what is found in the four EPEs that address educational challenges that have been noted in classrooms and that suggest how these challenges may be addressed.

5. Concluding discussion

In summary, the starting point in the institutional process we have documented is the referral from the school. In response to this referral, the EPEs are produced, and the descriptions tend to focus on the singular child as the *locus* of the problem at hand. This confirms an institutional tradition that has

a long history, most likely as old as schooling itself (Deschenes, Cuban, and Tyack 2001; Mehan, Hertweck, and Lee Meihls 1986). The EPEs touch only briefly, if at all, on the character of the learning environments in which the problems occur. The EPEs are also written in a manner which implies that they suggest a number of hypotheses about the cause of the problems at hand. In these texts, the diagnostic vocabulary, reflecting specific kinds of psychiatric and psychological problems, is already present. Thus, there is an intertextuality between the text of the referral, the work of the psychologist, the EPE and the decision produced, in the sense that the various elements of the process are coordinated through a common language utilising distinctive categories. The hypotheses expressed in the referral document are typically linked to the selection of tests, the interviews conducted, the rating scales and the observations which the EP may use to investigate the case. Very often, the testing procedures involve testing IQ and/or symptoms of disruptiveness, lack of concentration, or symptoms of Autism spectrum disorder, as these measures correspond to what is already in the referral document. In 20 of the 35 cases, the conclusions of the EPEs are based solely on the psychological testing and rating scales. In 11 of the 35 cases, there are some observations from the classroom, but these solely concern the child in question, and they typically zoom in on diagnosis-related behaviour. It is evident, that elements of the school problems that may be related to the learning environment are not included in the EPEs. The lack of attention to the school environment is illustrated in the fact that the classroom context in many cases is not observed at all as a part of the examination procedures.

Four EPEs contain detailed information from the classroom environment and the teaching procedures, and these sections of the EPEs document observations and provide conclusions that point to concrete details of the challenges that individual children are exposed to. They also provide clues to how these situations may be addressed in the day-to-day life in school. This inclusion of classroom observations seems to point to elements of the teaching practices and life in the classroom that would be relevant to consider when a decision is taken. The concrete example we have included above points to tensions between the child's capabilities and the way teaching is organised that are relevant for understanding a child's frustration. From a psychological point of view, it is also interesting that the EPE reflects on how this mismatch could be reduced by adjusting the teaching to better fit the needs of the child in question.

Our analysis also sheds light on why the learning environment so seldomly is included in the reflections and recommendations in the EPEs. The reasons are

(i) the system for allocation of financial resources. The dilemma pointed to here is that schools have to pay for adjustments in the local learning environment, while moving children from a mainstream school to a special needs classroom or school has no financial consequences for the school. The comments made by EPs indicate that they refrain from suggesting solutions which may be costly for the school.

(ii) Another element in this process has to do with professional training of the EPs. Testing children is a defining element of their profession, while observing and analysing the communicative dynamics of classrooms are not activities they feel equally well prepared for.

(iii) A third element of these dilemmas, pointed to by some of the EPs, is that classroom observations are more complex and contextual, and they cannot be as easily summarised and communicated in the EPE in comparison to numerical test results. Thus, in a sense, what this process illustrates may be read as a sign of what the historian Porter (1995) refers to as the 'trust in numbers' which seems to dominate institutional decision-making and public life more generally in contemporary society. Numbers, scales and other quantifications reduce complex problems and make it easier to communicate and argue without considering contextual factors in systems which tend to become increasingly opaque for decision-makers.

In relation to points ii) and iii), it is interesting to note that there are attempts to develop tools and instruments that increase the possibilities of taking contextual and concrete factors into account.

One such tool is the WHO International Classification of Functioning, Disability and Health – Children and Youth (ICF-CY) which represents an attempt to assessing not only the child but also the learning environment that the child is taught in. Experiences from Portugal indicate that the implementation of the ICF-CY-model leads to richer and more context-sensitive descriptions from the school psychologists when producing evaluations and formulating advice on how to remedy the problems at hand. Silveira-Maia et al conclude that ' … the use of the ICF-CY promoted more complete portrayals of functioning and disability experiences, by bringing into consideration a wider range of Activity and Participation and Environmental indicators' (Silveira-Maia, Lopes-dos-Sant, and Sanches-Ferreira 2017, 580).

At the systemic level, our results point to the necessity of addressing the interplay between the funding schemes and how school difficulties are responded to. The system may inadvertently give school leaders, who are often under heavy financial pressure, motives for streaming children. In other words, in some Danish municipalities, the resource allocation system makes it expensive for school leaders to try to attend to children's need for support in class, while the costs incurred when sending the child to a special needs classroom will be taken from another source. These mechanisms may have incentives that work against the idea of inclusion. School leaders and decision-makers at various levels must be assumed to act rationally, and the rationality invoked by current funding principles may provide incentives that work against the politically endorsed ideas of 'having a school for all.' The responsibility for this state of affairs does not lie with teachers or school leaders, but rather with the mechanisms introduced for steering the system.

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