



Exploring Educational (Un)readiness Through the Concepts of Dispositive, Assemblage and Actor-network

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Abstract

In this article, we examine the analytical potentials of the concepts of the dispositive, assemblage, and actor-network developed by Foucault, Deleuze, and Latour, respectively. We do so by engaging with a selected empirical case concerning an intervention in the Danish educational landscape—the Assessment of Educational Readiness (AER). Regarding the dispositive, the ambition of problematizing and destabilizing the status quo is pursued with genealogy as an analytical tool, and by analyzing the heterogeneous constitutive complexities in order to illuminate how that which is regarded as natural comprises specific forms of power/knowledge. This analytical strategy we describe as a reality- and subjectivity-problematizing reconfiguration. With the analytical strategy imbricated in the concept of assemblage, the-taken-for-granted is disrupted by examining processes of becoming and the production of differences associated with these processes, as well as unpacking potentialities in the form of fractures, cracks, or tentative attempts to develop alternative ways of becoming. It allows us to engage with the complex nature of a phenomenon by focusing on virtuality in the form of the not yet realized or that which is yet to come, which is why we term this analytical strategy a virtual reality reconfiguration. Finally, the actor-network as an analytical strategy examines the ways in which the social is constructed through the joining together of heterogeneous actors in networks and by mapping events with the aim of providing insight into how heterogeneous human and non-human actors are networked together and create new realities. We term this analytical strategy a heterogeneous reality reconfiguration.

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Introduction

Educational research deals with complex, volatile, and processual phenomena. However, these phenomena are often closely related to educational policy and practice, which in turn often call for instrumental research of ‘what works’ or research providing straightforward directions for action. These ‘neo-positivist’ (Lather & St. Pierre, 2013) modes of research tend to assume a stable world where we can identify ‘research objects’ as well as linear methodological and analytical strategies. While perhaps necessary, and in some cases useful, these research forms leave large swathes of nuanced and complex potential insights unexamined. Typically, what is sidelined, taken for granted, or ignored entirely is the very constitution of the phenomena that are researched, as well as ‘the workings’ of the phenomena in terms of what they bring into being beyond the taken-for-granted (i.e., prescribed, desired, or intended) effects.

In this article, we aim to challenge the tendencies to simplify and unify; we set out to explore the potentials of engaging analytically with what could be termed horizons of the unexamined. Furthermore, we seek to move away from the linear approach where one starts with a research question and then sequentially presents methodology, data generation, theory, analysis, and conclusions, instead treating all these dimensions of research as intertwined. We try to think of a ‘research problem’ in terms of the imbrication of a complex configuration of heterogeneous elements that are constantly in the making, never completely stable, never completely the same. To do this, we endeavor to explore differences, similarities, conjunctions, and disjunctions between approaches centered on three analytical concepts: dispositive, assemblage, and actor-network, developed by Michel Foucault, Gilles Deleuze, and Bruno Latour, respectively. We decided to focus on these particular conceptualizations for two key reasons. First, the authors of the three concepts we deploy have all broken with French structuralism and instead offer a non-essentialist reading of realities and worlds, nurturing deconstructive analytical ambition in each their particular ways. Second, these authors are among the pioneers that inspired contemporary posthumanist and new materialist approaches, characterized by some of the same ambitions of counteracting reductionist and anthropocentric knowledge production.¹ Meanwhile, what are the basic ideas developed by Foucault, Latour and Deleuze that have provided the foundation for posthumanist and new materialist approaches? In the following, focus will be on the three chosen concepts – dispositive, assemblage and actor-network – in order to outline the basic ideas at their core and examine the analytical potentials by engaging with a selected empirical case of an intervention in the Danish educational landscape—the Assessment of Educational

¹ These approaches have, as a premise, a ‘decentering’ of the human or, to be more precise, a particular figure of the human conceptualized in white, western, academic, gendered, and colonialist thinking (Braidotti, 2013). Instead, they begin with a different view: that of the human-in-relation as co-constituted by non-human materiality. These approaches enact and make possible research endeavors that produce knowledge differently. Karin Murriss points out that: ‘This radical shift towards relational materialism opens up new and profound possibilities for reconceptualizing what knowledge ‘is’, which and whose knowledge ‘counts’ and how we ‘make’ knowledge—which brings to the fore knowledge-making as a political, ethical and critical enactment” (Murriss, 2021, p. 23).

Readiness (AER),² developed and mandated by the Danish Ministry of Children and Education (2019a, b). The case consists of policies, guidelines, practices, and effects related to the mandatory assessment of readiness for (various forms of) upper secondary education among students (aged 14–16) in lower secondary schools in Denmark. We selected this particular case due to its multifaceted nature, the number of diverse actors and stakeholders involved, and its consequences in terms of young people’s subjectivities and educational pathways. We also looked for ‘a piece of educational reality’ that could in turn challenge the deployed analytical approaches in terms of their capacity to foster rather than reduce complexity.

Our point of departure is the assumption that the concepts of dispositive, assemblage, and actor-network enable analytical thinking that destabilizes the prevailing, or taken-for-granted, systems of meaning related to this particular case and that can bring to the fore a more nuanced understanding and debate.

In the following, by using the case as an example, we focus our exploration of the analytical potentials of the chosen conceptualizations in two steps: First, we look into the complex configurations that the three conceptualizations make available for empirical analysis and the horizon of elements and agencies they enable in the analysis. We focus on how the interrelations between these elements and agencies are configured, and on which strategies they suggest for tracing and mapping such processes and phenomena. Second, we turn to the implications of using dispositive, assemblage, and actor-networks as analytical approaches to understand the configuration of human and non-human effects of the AER. In other words, based on the three concepts, what can we highlight about what AERs do? Finally, we reflect on the lessons learned, not only reassessing our analytical use of the conceptualizations and their analytical potentials, but also, as part of this reflection, discussing how doing so has changed our understanding of the case.

Outline of the Case: AER

The following outline of our case is primarily based on the current official ministerial guide (Ministry of Children and Education, 2019b),³ which describes the legal foundation for AER and how it is implemented in practice. The assessment was originally implemented in the school year 2010/11 and has since undergone several changes. However, the presentation of the guide alone shows that AER is a complex case, and at the end of this section, we look at how a recent report underlines the complex and dilemma-filled nature of working with AER.

All students attending Danish primary and lower secondary education (age 6–16) undergo an AER. Educational readiness is defined as the degree to which the student fulfills a range of academic, social, and personal criteria for starting and graduating from various upper secondary educational programs. The assessment is a process that starts when students are in the 8th grade (age 14) and is repeated in the 9th and 10th grades for those students who were classified as *not ready* in the first assessment. The idea is to ensure, following the first assessment in the 8th grade, that students assessed as *not ready* for one

² In Danish: *uddannelsesparathedsvurdering*, abbreviated *UPV* in everyday speech when talking about the assessment.

³ For an English introduction to the Danish guidance system and the institutionalized transitions between compulsory school and upper secondary education, including AER, see Euroguidance Denmark (2020).

or more of the Danish upper secondary programs are supported through an individually planned school-based guidance process. As a rule, all students should be assessed for educational readiness at least once.

A positive AER is required for entry to three categories of Danish general and vocational upper secondary education: the 3-year upper secondary education (high school), 2-year higher preparatory education, and vocational education. The assessment is linked to students' preferences regarding these general and vocational upper secondary options, but there are certain formal requirements restricting their choice.

For the 2-year higher preparatory education and vocational education, the academic criterion for educational readiness is GPA of minimum 4.0, while for the 3-year upper secondary education the average grade must be 5.0 or higher.⁴ The personal capacities that students need to fulfill in order to be assessed by their teachers as *ready* are categorized in five focus areas: independence, motivation, responsibility, school attendance stability, and readiness to choose youth education. Students' social capacities are assessed by teachers within three focus areas: ability to cooperate, respect for others, and tolerance. All three domains are valued equally when teachers assess educational readiness.⁵

The school has the responsibility to inform students and their parents about the results of the initial 8th grade AER, reporting on the digital platform *optagelse.dk*.⁶ Students who are assessed as *ready* for their preferred category or categories of upper secondary education in the 8th grade participate in the associated collective guidance organized at the school. These students only need reassessment in 9th or possibly 10th grade if their grades fall below the required average or if the school considers their social and personal capacities as no longer meeting the criteria. A new assessment is only made if a change occurs in one of the sets of criteria.

Students who are assessed as *not ready* take part in a guidance process organized by the school aimed at fostering their readiness to start and complete upper secondary education. At this stage, these students need to decide which category of education they would prefer, with guidance adjusted to suit their needs and the criteria related to the particular educational program. Only students assessed as *not ready* are entitled to this individual guidance process. The process becomes part of their personal education plan from the 8th grade onwards.

For students assessed as *not ready*, the subsequent process takes place in a collaboration between the school and the municipal department responsible for interventions targeting young people. The targeted guidance process consists of a course of individual or group-based guidance and the opportunity to participate in bridging activities that attempt to establish connections between compulsory and youth education.

In 2020, the Danish Evaluation Institute (EVA) published a report based on a series of studies of AER, starting in 2014 (EVA, 2020). These studies were organized in collaboration with the Danish Ministry of Children and Education. The report focuses on an

⁴ In Denmark, a 7-point grading scale is used. There is the following relationship between the grading scale and the ECTS scale: The grade 12 on the 7-point grading scale corresponds to an A on the ECTS grading scale; the grade 10 corresponds to a B; the grade 7 corresponds to a C; the grade 4 corresponds to a D; the grade 02 corresponds to an E; the grade 00 corresponds to an Fx; and the grade -3 corresponds to an F.

⁵ From the school year 2018/19, a fourth set of criteria was added to the AER: practical capacities. These criteria are complementary and cannot lead to a negative assessment.

⁶ *Optagelse* means admission. The purpose of *optagelse.dk* is to ease the process of applying for upper secondary education.

evaluation of AER's ability to identify and help students who need support to fulfill the criteria for starting and completing a general or vocational upper secondary education.

Interestingly, the report points out that school principals, teachers, tutors, students, and parents alike perceive AER as a both comprehensive and complicated process. This is due in part to several changes to the rules governing the AER since its introduction in 2010. For example, AER has changed from a single assessment of each student in 9th grade to either one or two assessments in 8th and 9th grade. Admission requirements have also been introduced for upper secondary education, as reflected in the academic criteria that are now part of the AER. In their report, EVA highlights that changes to the academic criteria implemented for the 2018/19 school year likely influenced their findings as this new framework was still unfamiliar to teachers and counselors at the time of their evaluation.

The report points out that the AER has a number of quite diverse functions, highlighting three of them.

Firstly, the AER has a pedagogical function, where it is used as a tool to identify and help unprepared students become *ready* for a youth education. While teachers highlight this supportive function, many argue that the AER has developed into an overly complex system with too many criteria and assessments. Many teachers also find that the focus on grades can overshadow the AER's pedagogical purpose. Interestingly, the report suggests that teachers tend to assess students more harshly in 8th grade than in 9th grade. The teachers argue that it can be used as a tool to motivate student to make an extra effort. There are also several interesting observations regarding students' perspectives on the AER. The report points out that many students are unaware of being assessed as *not ready*. Furthermore, the report highlights a dilemma regarding the pedagogical function of AER: While it seems to motivate some students, others find it demoralizing or downright stigmatic not to be assessed as *ready*.

Secondly, the AER has a gatekeeping function. The AER is included as a prerequisite for admission to upper secondary education. The report points out that the AER, along with the grade requirements (particularly those for admission to 3-year upper secondary programs), can increase stress and performance anxiety among students. This is particularly true during the period leading up to the results of the assessment. The teachers find that the academic criteria are prioritized in the overall assessment and that the grade requirements for admission to upper secondary education counteract the intention that AER should take personal and social capacities into consideration as well as assessing the student's academic level. Furthermore, students have a legal right to admission to any upper secondary program if they score an average of 6 or above in the statutory primary and lower secondary school-leaving examination, regardless of the outcome of the AER.

Thirdly, the AER has a resource allocation function in relation to guidance and other student support measures. Teachers, guidance counselors, and school principals all point out that AER in its current form can create barriers for students with a need for guidance and special educational assistance. Individual educational guidance is reserved for students assessed as *not ready*, with all other students instead referred to various online and telephone-based guidance channels offered by the Ministry of Education's centralized eGuidance service. However, several counselors find that, despite being deemed *ready*, some students need individual guidance at school to help them choose an upper secondary program. To meet such students' needs, some counselors choose to offer them school-based individual guidance even though no resources are allocated for such activities.

Schools are duty bound to implement special measures and activities for students assessed as *not ready*, but some schools point out that it is difficult to find the necessary resources. A lack of resources means that the schools only feel able to offer these students

support within the framework of existing activities and regular lessons. Examples include agreements with individual students to make an extra effort and increased attention and support from teachers during lessons. Supporting students' preparation for a youth education is already a core task for schools and therefore not limited to the AER. The fact that several teachers and school principals highlight insufficient resources as a challenge in relation to AER may be because the personal education plan⁷ and special support measures for students deemed *not ready* are seen as a time-consuming task on top of all their other tasks. This is especially true in schools with a high proportion of students assessed as *not ready*, with the substantial variations, both regionally and across schools, another issue related to AER. In some schools, only a small percentage of 8th and 9th grade students are assessed as *not ready*, while about it can be as many as half the students at other schools.

Finally, it is worth noting that the evaluation indicates that there is a big difference in how schools organize AER, although a framework has been established as a result of current executive orders and guidelines.

To summarize, the current official ministerial guide for AER (Ministry of Children and Education, 2019b) and a large-scale evaluation of its implementation (EVA, 2020) show how the AER shapes a number of complex practices through which students in 8th and 9th grade are evaluated in order to determine whether or not they are *ready* to enter upper secondary education. If students are assessed as *not ready*, a number of activities and measures are set in motion.

We see this case as a complex amalgamation of persons, practices, technologies, discourses, documents, materials, norms, and policies. It involves (relations between) politicians, government officials, policymakers, educational governance bodies, municipalities, school principals, school staff, school structures, parents, and students. Various artifacts and practices, whether material (e.g., in the form of written guidelines or students' grade average), subjective (e.g., students' social, personal, practical, and academic capacities), discursive (e.g., the framing of the issue of educational readiness itself), or cultural (e.g., what are considered appropriate ways of being and becoming a student), entangle in complex ways and constitute the case.

AER as Dispositive

Foucault redefined the concept of the dispositive⁸ at the beginning of the 1970s, but only explicitly outlined this definition once, during an interview in which he emphasized its relational character as a fundamental aspect:

'What I'm trying to pick out with this term is, firstly, a thoroughly heterogeneous ensemble consisting of discourses, institutions, architectural forms, regulatory decisions, laws, administrative measures, scientific statements, philosophical, moral and

⁷ From the kindergarten class up to and including the 9th grade, each student must have a student plan that is used in conjunction with continuous assessment. The student plan must contain individual learning objectives and a status section that maps the student's progress in relation to these objectives. In 8th and 9th grade, the student plan must also contain information about the student's post-lower-secondary educational goals, as well as agreements to help ensure they achieve these goals.

⁸ We use the term 'dispositive' here as it seems to be the most precise translation of the French concept 'dispositif'. However, 'dispositif' is also sometimes translated to 'apparatus', e.g., in the quote below.

philanthropic propositions—in short, the said as much as the unsaid. Such are the elements of the apparatus. The apparatus itself is the system of relations that can be established between these elements. Secondly, what I am trying to identify in this apparatus is precisely the nature of the connection that can exist between these heterogeneous elements (...) Thirdly, I understand by the term ‘apparatus’ a sort of – shall we say—formation which has as its major function at a given historical moment that of responding to an urgent need. The apparatus thus has a dominant strategic function’ (Foucault, 1980, pp. 194–195).

Thus, a dispositive is firstly a conglomerate of heterogeneous elements, with the dispositive constituting the connecting lines between these elements ‘which dispose the actors, at the same time as the dispositive itself is shaped by the actors’ actions’ (Raffnsøe et al., 2016). Secondly, the dispositive analysis is characterized by a search for insight into the dynamic interplay between the heterogeneous elements of the dispositive, which (thirdly) is created as a strategic response to a challenge that, in a particular historical situation, is seen as a tenacious problem. The AER is one example of such a response to a historically specific problematization, in this case of a specific relationship between young people and education – namely the fact that some young people in Denmark do not gain upper secondary qualifications. Thus, the dispositive also fulfills a function that it simultaneously shapes and changes (Raffnsøe & Gudmand-Høyer, 2005).

Foucault was particularly interested in the background for the establishment of a given dispositive and, through historical study, sought to answer the question of what was being problematized prior to the establishment and prevalence of this dispositive. Here, however, we apply dispositive analysis as an analytical strategy addressing a complex construction of a contemporary problem.

Questions used to perform a dispositive analysis of the case would include: What are the problems that the AER is intended to provide solutions to and how is the assessment supposed to solve these problems? How has the generalized imperative of (civilized) young people as rational, efficient, and able to plan for the future come into being, and how does this imperative affect students’ ways of relating to themselves and each other, as well as to the surrounding society? How do social technologies such as the AER constitute, implement, and change a society’s central institutions and experiences?

The aim of the dispositive analysis is thus to investigate what enabled certain practices related to the AER, and what grounded their intelligibility. Furthermore, the aim is to problematize taken-for-granted understandings of the AER. To echo Rabinow and Rose (2003, p. 13), the dispositive analysis allows us to move away from seeing the AER and the problems it is supposed to solve as ‘a given’ and towards treating the AER as ‘a question’ whose formation and being taken for granted must itself be subject to analysis.

Foucault distinguished between three types of dispositive – dispositives of law, discipline, and security – and emphasized a dynamic interplay between them (Foucault, 2008). Whereas the dispositive of law designates the desired and the undesirable and seeks to restore an order that has been disturbed, the dispositive of discipline shapes sociality by aligning and optimizing subjects and by correcting unproductive behavior in accordance with norms (Villadsen, 2021b, p. 118). The security-creating dispositive functions as that which must grasp the unexpected and disturbing.

We can trace some of the problematizations that gave birth to the AER to the so-called ‘Youth package II’, which was adopted in 2009 as part of a broad political settlement, ‘More young people in education and jobs’ (The government and the parties to the agreement, 2009). The purpose of the package, and thus AER, was to prepare as many students

as possible for youth education (upper secondary education and vocational education). This intention must be seen in light of the political goal at the time that 95% of a youth cohort should complete a youth education. The problematizations can also be traced in subsequent bills and amendments and in various regulations. E.g., it is clearly and explicitly formulated in ‘The executive order on educational readiness assessment’ (Ministry of Children and Education, 2017). The executive order states, among other things, that ‘15–17-year-olds have a duty to engage in education, employment or other activity aimed at young people completing an education’ (§2a), and that the guidance of young people ‘shall contribute to the choice of education and occupation being of the greatest possible benefit to the individual and to society, including that all young people complete an educational program providing vocational qualifications (§1)’. It is also evident in these documents that students are expected to have a plan for further education when completing the 9th grade of primary and lower secondary school (§2c), thereby subjecting young people to specific ways of being.

The various political agreements, laws, and executive orders also shape the disciplinary dispositive by identifying the ideal youth subject through a focus on specific academic, personal, social, and practical criteria. A dispositive analysis would allow a focus on the rationales embedded in this ideal youth subject, such as a desire to learn, motivation for education, independence, and responsibility. Such analysis opens up for insights into the disciplining effects these ideals have on the subject’s relation to self (Foucault, 1988), and on what he called self-governance with an aim of self-improvement. Self-governance is defined as technologies of the self; that is, the ‘ways in which human beings come to understand and act upon themselves within certain regimes of authority and knowledge, and by means of certain techniques directed to self-improvement’ (Rose et al., 2009, p. 11).

Furthermore, a dispositive analysis allows examination of the effects of the separation processes that are set in motion when students are assessed as *ready* or *not ready* for upper secondary education. This ‘normalizing judgment’ (Foucault, 1977), based on comparison, plays a vital role in the disciplinary power of the AER. Foucault’s redefinition of power as productive, differentiated, and relational, as well as his definition of subjectification, is thus an integral element in the analytical strategy of the dispositive (Villadsen, 2021a).’

The security dispositive establishes a contingency aimed at capturing and shaping what the law and discipline dispositive failed to fix. In relation to the assessment of educational readiness, this applies, e.g., to the students in the 8th grade who are assessed as *not ready* for further education. The dispositive initiated in this case involves the school’s educational counselors, who must prepare a specific assessment of the students’ personal and social capacities and lay out a plan for improvement that will allow them to transition from being *not ready* to *ready* for further education. The security dispositive also focuses on establishing standards and targets for what is considered optimal development in a certain area. In relation to our case, shifting governments in Denmark from 1990 onwards have had the aim of including at least 90% of young people in youth education and preparing them for the labor market. The AER is one example in a series of policies and practices to help achieve this aim. Thus, AER does not only subject young people to specific ways of being in terms of completing education, but also plays a part in the production of the workforce.

The three dispositives do not stand alone; they are intertwined and interact—sometimes aligned with each other, sometimes in mutually competitive and contradictory ways, affecting the subject’s self-constitution in multiple directions. This also opens up for an analysis of how the designated and gradually more detailed evaluation practices shape the relationships between students, teachers, educational counselors, parents, and school principals. This line of analysis would focus on how those involved shape and transform the dispositive, which,

as also emphasized by Raffnsøe et al. (2016), is non-deterministic. It would help gain insight into how teachers, and to some extent also educational counselors, come to simultaneously function as supervisors and assessors in the AER and the power it gives them in determining students' educational future.

In summary, a dispositive analysis allows the generation of insight into the rationales that shape the AER's becoming and thus the deconstruction of the underlying and taken-for-granted truth regimes. Dispositive analysis also helps generate insights into the functions of AER practices, for example in relation to what Foucault called the microphysics of power in reference to how particular rationales and truth regimes are established and how they shape the subject through technologies of the self.

AER as an Assemblage

The work of Gilles Deleuze offers the concept of assemblage.⁹ Like Foucault, Deleuze's thinking is fundamentally relational and has been described as rhizomatic, in the sense that he sees the world as a set of root networks (rhizomes) that intertwine and connect underground and are not hierarchically structured (Deleuze & Guattari, 1987). He describes these root networks as assemblages (*agencement* in French) (Müller, 2015; Nail, 2017).

The terms territorialization, reterritorialization, and deterritorialization can be used to describe stratification processes and stratified positions within a given assemblage. Territorializations divide the world into coded segments. Each concrete element has a designated place, and each person's life has a plan related to its place in the world. In the words of Deleuze and Guattari:

We are segmented in a linear fashion, along a straight line or a number of straight lines, of which each segment represents an episode or 'proceeding': as soon as we finish one proceeding, we begin another, forever proceduring or procedured, in the family, in school, in the army, on the job. School tells us, 'You're not at home anymore'; the army tells us, 'You're not in school anymore'. (Deleuze & Guattari, 1987, p. 209)

If the actions associated with participation in a particular world are specified in great detail, then one can speak of a striated space. If the options for action are more generalized and open to interpretation by the participants themselves, meanwhile, this can be referred to as a smooth space. Deleuze was attentive to the fact that power can function as oppressive and restrictive. When he speaks of reterritorialization, we argue that Deleuze's concept of reterritorialization is reminiscent of Foucault's use of dispositive.

However, he was less interested than Foucault in reconstructing the processes of formation. Instead, he engaged with the fragility, fluidity, and potentialities embedded in the pathways of production. Deleuze focuses on the resulting potential for alternative outcomes that could provide the opportunity to escape territorialization and reterritorialization: what he terms deterritorialization or lines of flight (Deleuze & Guattari, 1987, p. 30).

Using Deleuze's conceptualization of assemblage to analyze our case would shift the focus to the many different elements of AER and the connections between them—especially

⁹ Deleuze wrote several of his works with Félix Guattari, who should also be credited for the thinking we here attribute to Deleuze.

helping us focus on what ties, or has the power to tie, these connections together. In contrast to organic unities assemblages are more like machines defined by their external relations of composition, mixing and aggregation. As Nail has pointed out, although all assemblages are singular and heterogeneous, they share three features that define their arrangement: ‘their conditions, their elements, and their agents, or what Deleuze and Guattari call their “abstract machine,” their “concrete assemblage,” and their “personae.”’ (Nail, 2017, p. 23).

Such an approach would allow us to view AER as an abstract machine that conditions the relationships between the various elements, and through which concrete elements and agencies appear. Similar to the previously outlined conceptualization of the dispositive, the concrete machine in Deleuze’s concept of assemblage is constituted by all the elements in the assemblage, human and non-human, material and discursive: laws, documents, evaluations, individual education plans, school buildings, computer programs, meetings, etc., giving the assemblage its consistency.

Deleuze suggests that an assemblage has *personae*, denoting the circle of people or agencies that have a position among the interacting forces and can both be affected by and affect the assemblage. *Personae* are not autonomous rational subjects, nor are they decentralized or fragmented subjects with no capacity for action. *Personae* in an assemblage are the mobile operators who bind the concrete elements together according to their abstract relations. For Deleuze, persons are not first-person, self-conscious subjects but rather to be thought of as in the third person; as the third-persons (he, she, they), they are collective subjects of an indefinite event (one, all, someone). In the AER case, *personae* are, for example, *ready* students and *not ready* students, (coordinating) educational guidance counselors and teachers (who award grades) etc.

Deleuze’s concept of assemblage allows multiple approaches to analyzing the AER. One obvious approach is to examine how the assemblage, through processes of territorialization and reterritorialization, makes a number of actors perform an assessment of students categorizing them as *ready* or *not ready* for further education. It is also possible to trace which actors come together and potentially exert power in ways that impact students’ educational future and their lives in general. For students assessed as *not ready*, the assemblage initiates a number of actions intended to help them become *ready*. Through analysis, it is possible to unpack how the assemblage works. Do the students strive to become *ready* (becoming the same), or do they become something else through the negative assessment (becoming other)? What possibilities (if any) does AER offer for alternative becomings?

Another possible line of inquiry would be to focus on what is happening with the AER assemblage itself, which was previously under development and continuously interacted with other assemblages, but which recently seems to be in danger of being discontinued or having to find another form. It would be interesting to see where these changes lead when applying Deleuze’s concepts. Are we in a situation where the assemblage is not reproducing itself, but where it is not clear whether a new assemblage is emerging/being created? Can we identify changes that will maintain and reproduce the AER assemblage in revised form? Will the AER be abolished without anything new being implemented, or are there signs of the development of a new assemblage that will create something completely new and different?

Deleuze offers a unique understanding of complexity that points to alternative, possible, yet unrealized assemblages. We can call this a virtual complexity that invites analysis of possible deterritorializations of students and other actors, as well as of the phenomenon of AER as a whole.

Another analytical approach would be to focus on what the AER assemblage produces. The AER appears to be an abstract machine that creates difference. It arranges

its elements in different ways and opens certain opportunities for each category it establishes. In general, the AER makes the final year of (compulsory) schooling a readiness-assessing, readiness-preparing, and readiness-improving assemblage. So, a possible answer to the question of what the AER does is that it potentially gives young people access to various educational assemblages; it differentiates between which educational institutions students can access; and it determines to whom guidance efforts should be directed. At the same time, it gives teachers and counselors the capacity to exercise these dividing-producing assessments. Furthermore, the AER appears to be an assemblage that simplifies the complexity of education and the processes of becoming by dividing students into *ready* and *not ready*, and by offering and implementing various more or less standardized measures, depending on whether students are in one category or the other.

AER generally takes place in a highly striated space, but the different assessments of students also lead to different territorializations. The guidance and other measures implemented are more striated if the student is assessed as *not ready*, while there is less focus on the student's performance and choices if they are assessed as *ready*. Using Deleuze's concept of becoming (Deleuze, 1994), we can distinguish between processes of becoming where the individual remains the same, becoming the same, and processes of becoming where the individual becomes another, becoming other. Depending on how students are categorized by the AER, *ready* or *not ready*, they must perform a series of actions. For *ready* students, these are actions where they remain the same (becoming the same), primarily by maintaining the required grade level. E.g., *ready* students who want to attend vocational education must make sure that their grade point average in the subjects Danish and mathematics is at least 2. Students who are assessed as *not ready* must strive to become *ready* (becoming other). This involves doing whatever is necessary to live up to the various requirements and/or realigning their educational aspirations to an assemblage where they meet the entry requirements. For example, a student wanting to enter a 3-year upper secondary program but without the required grades can either seek to improve their academic performance or turn their attention to a vocational program with less stringent academic requirements. However, the forms of becoming offered to students are quite standardized and seem to only offer students a single option: taking action to fulfill the various criteria for educational readiness, although there is no guarantee these actions will gain the recognition of teachers and counsellors. Meanwhile, teachers and counselors are themselves under pressure to ensure their students are *ready* for upper secondary education.

We might also ask whether there are alternative options for students in the final years of compulsory schooling to be part of an AER assemblage, but it is difficult to see how students can find alternative ways of becoming. We could try to find out whether students who have been assessed *ready* are temporarily able to secure a space free from assessment criteria, for example by attending a Danish *efterskole*¹⁰ or by taking the voluntary 10th grade offered within the public education system in Denmark. Assemblage analysis also allows us to look for specific assemblages that succeed in troubling the AER, allowing students the opportunity to influence the understanding, practice, and significance of the existing standards for AER.

¹⁰ The *efterskole* is a unique Danish independent residential school where students from the ages of 14 to 18 can choose to finish their primary education.

AER as Networked Actors

Latour questioned the importance that the concepts of dispositive and assemblage attribute to discourse and human subjects. He instead proposed a rigorous analytical approach that follows (re)configurations of networks consisting of multiple human and non-human actors in order to illuminate the becoming of specific social phenomena (Latour, 2005). In this sense, Latour was not engaged in the history of ideas, genealogy, or imaginaries of lines of flight, but in tracing and stitching together human and non-human elements of the social that do not typically belong together.

Latour, unlike Foucault and Deleuze, was less interested in mapping power relations directly. His central concept, actor-network, is somewhat similar to Deleuze's assemblage. Latour used 'assemblage' in his early work but later substituted the concept with 'actor-network', indicating a move away from the conventional understanding of configurations and relations between constitutive parts and wholes. Latour suggested the term 'slowciology' (Latour, 2005) to designate an analytical strategy that suggests an alternative topography of the social, or a question of cartography which is 2D rather than 3D in the sense that there is no context within which phenomena assemble and disassemble. The scale (context) is not framed prior to study; it is what actors in a network achieve by scaling, spacing, and contextualizing each other through transportation in some specific vehicles of some specific traces. The idea is to simultaneously consider the actor and the network (hence actor-network with a hyphen).

The first step in an actor-network analysis would thus be to map which actors are part of a given actor-network, focusing on the heterogeneous actors who gather to create and enact the AER practice: How are networks mobilized around AER? How are different human and non-human actors mobilized into a network? How do networks gain temporary stability and which relationships generate instability? What are the plug-ins (offers of ready-made subjectivities, justifications, etc. that circulate in the actor-network)? What are the processes of delegation, dislocation, and translation through which AER comes into being?

Latour's approach enables us to think of the AER as a set of reality-constituting actions and therefore to explore the actions that are part of assessing educational readiness to see which actors (both human and non-human) are linked together and how they are recruited and kept connected through the enactment of AER. Such an analysis would draw on the concepts of intermediaries and mediators, to distinguish between whether the 'vehicle' (Latour, 2005) merely connects two actors or also changes them in some sense. With the actor-network approach, it becomes possible to explore the following aspects of AER: How does the specific online tool (optagelse.dk) digitally link primary and lower secondary school to youth education through teachers' assessments of students' readiness or non-readiness for further education? How does the written notice that the school is obliged to give parents in connection with their child's assessment connect parents and schools? How do student-plans link teachers and counselors to students, for example by allocating guidance and other forms of support to students who have been assessed as *not ready*? Latour allows us to unpack the possibilities for action of each involved human and non-human actor that the mobilization of the actors around the AER enables.

Latour's actor-network concept is particularly helpful for exploring the impact of a widely accepted standard for educational readiness, including the consequences for students who do not live up to this standard, both in terms of their subjectivities and their educational pathways. The various positions in the actor-network each allow a certain range of actions, for example making *not ready* students strive to become *ready*. If the network

is stable, all actors will do what is expected of them to ensure that students can be categorized as *ready* before completing 9th grade.

Drawing inspiration from earlier actor-network studies (e.g., Callon, 1984), the next step in the analysis would be to ask whether the AER network is sufficiently coherent to support students in becoming *ready* for education. For example, is there sufficient connection between the assessment and guidance elements within the actor-network? Is there sufficient coherence between the respective efforts of teachers and counselors to prepare students categorized as *not ready*? Does the written notice succeed in connecting parents to the network so that they will cooperate with the school to help develop their children's educational readiness?

In the evaluation report from 2020 (EVA, 2020), 40% of the young people categorized by the AER as *not ready* reported that there were no follow-up activities. This suggests insufficient coherence between assessment and guidance actors within the actor-network. However, despite this lack of coherence, most students become *ready* by the end of 9th or 10th grade, apparently independently of the counselors' and teachers' follow-up practices. Such data suggest that tracing other movements within the actor-network would expand our understanding of the ways in which educational readiness is produced by unintended interactions or movements within the actor-network. For example, we could explore whether the mere existence of the actor-network places so much pressure on students that they raise their level on their own and thereby live up to the academic, social, personal, and practical requirements set by the AER?

Early research within actor-network perspective (Callon, 1984) has shown that seemingly stable actor-networks can rapidly dissolve. This calls for an analytical focus that extends beyond examining what maintains the actor-network by also exploring potential threats to its stability, for example which connections have been weakened, which justifications have lost their legitimacy, and which new ones seem more attractive at a given moment.

At the time of writing of this article, there is growing public discussion of the AER. The practice is losing support among politicians, while both school principals and guidance counselors have expressed their dissatisfaction with some of its effects. Evaluations and articles in trade union journals indicate that counselors are finding it increasingly difficult to perform their task as student counselors because they have become part of an assessment actor-network. As a result, students who have been assessed as *not ready* do not come to them for counseling. Meanwhile, school principals report finding that the school has become more a locus for examination and assessment than for learning, with students having to pass exams rather than accrue the necessary experience and competences to engage in society. As mentioned previously, students who have been assessed *not ready* report that they feel stigmatized and that they have 'flunked life'. Statements like these demonstrate how the actor-network succeeds in translating actors' purpose (e.g., schooling), tasks (counseling), and affect (self-esteem), but may do so in unintended ways. These are all examples of the actor-network generated realities. There is no primary constructor of the AER. Neither the Danish parliament (*Folketinget*), the Ministry of Education, the school principals, the teachers, nor the counselors are above or outside the AER. They are part of it along with a host of other human and non-human actors. The actors who are part of the actions performed within the network are themselves affected by these actions. Just as Latour has shown that Pasteur, who invented the pasteurization of food, is not simply an autonomous scientist, but the result of a network of pasteurization (Latour, 1988), we highlight how counselors, school principals, decision makers and ministers simultaneously produce and are products of the AER. This is illustrated by the Ministry's appointment of

an evaluation institute to monitor the effects of the policy process. Although politicians do not have to follow the institute's recommendations, such recommendations become part of a practice where some actors in the overall AER network will certainly use them for something. This can have effects on both the composition and practice of the AER network.

Although there is always a possibility that a given construction of reality at a given time can become unstable and fall apart, it is important to keep in mind that several realities or realizations can occur simultaneously. Rather than examining the internal coherence of a network and mourning its fleeting stability, more recent actor-network studies (e.g., Fenwick & Edwards, 2010) have become increasingly interested in the co-existence of several different realizations of the same object (e.g., the AER), something that becomes possible precisely because of the fluidity of actor-networks. With the notions of fluidity and performativity, we are on the trail of a different kind of complexity than the linear type found in earlier actor-network studies. This new understanding of complexity leads us to examine how objects are performed in several ways simultaneously. For instance, variations in the performance of an AER can be distributed across different bureaucratic levels and geographical locations. Each time an AER is performed, a network and a special variant of AER are produced at the same time. From this perspective, it becomes noticeable that teachers use the AER to motivate 8th grade students to make an extra effort. As already mentioned, they indicate that they are tougher in their assessments in 8th grade than in 9th grade as they want to give students a push while they still have time to become *ready* for upper secondary education (EVA, 2020). It is thereby clear that they perform the AER differently at different grade levels.

Concluding Reflections Thinking with Multiple Concepts to Expand Complexity

The concepts of dispositive, assemblage and actor-network share a common focus on unpacking and troubling the taken-for-granted belief that AER is a timely helping hand for students who are *not ready* for youth education. However, this focus unfolds in different ways:

Using genealogy as an analytical tool and analyzing constitutive complexities via the concept of the dispositive, Foucault seeks to understand and, not least, disturb the present by directing attention to how that which is regarded as natural comprises specific forms of power/knowledge. Meanwhile, Deleuze disrupts the taken-for-granted by examining processes of becoming and the production of differences associated with these processes, but also by unpacking potentialities in the form of fractures, cracks, and tentative attempts to develop alternative ways of becoming. Finally, Latour studies the ways in which the social is constructed through the joining together of heterogeneous actors in networks. As such, potentially fertile analytical approaches might apply either a short or a slightly longer historical perspective, or might trace phenomena (e.g., AER) as they develop around matters of concern (e.g., readiness for further education).

As discussed above, Deleuze seeks to engage with the complex nature of the phenomenon that is being studied by focusing on virtuality in the form of the not yet realized or that which is yet to come. One could thus label Deleuze's destabilizing analytical strategy *virtual reality reconfiguration*. 'Virtual' emphasizes the focus on potentiality as characterized by the continuous, processual possibilities that are prominent in Deleuze's thinking. 'Reality' marks the strategic analytical tool's contribution to both understanding and producing specific realities; for example, Deleuzian approach would study

events in order to emphasize that AER generates reality through, among other things, the differences and territorializations that the assessment produce. ‘Reconfiguration’ emphasizes the performative worldview, where reality and the world are constantly being created and thus in motion.

Latour shares neither Foucault’s preoccupation with genealogy nor Deleuze’s interest in imaginaries of alternative, liberating futures in the form of lines of flight. Rather, he is interested in mapping events, providing insight into how heterogeneous human and non-human actors are networked together and create new realities. In this light, one might describe Latour’s destabilizing analytical strategy as *heterogeneous reality reconfiguration*. ‘Heterogeneous’ indicates Latour’s central ambition of understanding how non-human actors partake in reconfigurations of reality in relation to AER, for example by focusing on technologies, lines of communication, and on what mediates interactions between actors in networks.

For Foucault, the ambition of problematizing and destabilizing the status quo is pursued through a history of the present and its heterogeneous complexity (Garland, 2014). Therefore, the analytical strategy he offers might be described as a *reality- and subjectivity-problematizing reconfiguration*, where the focus in relation to AER might start by questioning how the understanding of the ideal young subject that AER seeks to enact has emerged and become established, and how it permeates the operationalization of AER.

While writing this article, the AER has been the subject of massive criticism and great political attention, which towards the end of our writing led to the establishment of a new model through which a plan is drawn up for all young people focusing on what they can instead of what they cannot. This plan also means that students from August 2023 are no longer assessed as not ready. Therefore, we will conclude by considering the implications of the three concepts we have presented in this article in relation to the question of the reconfiguration, of the AER. Would abolishing the practice of AER create new and more liberating reconfigurations?

Thinking with the concept of assemblage, the reconfiguration of AER would create new opportunities for becoming. Analysis would focus on whether – and if so, how – these lines of flight could create safe spaces, free of evaluative judgments and fixed subjectivities. At the time of writing, this does not appear to be the case as the entry qualifications are maintained just as the admission is not expected to change. However, through the concepts of territorialization, deterritorialization, and reterritorialization, one could look for cracks, breaks, and opportunities to become in other ways and explore whether this new assemblage can be liberating.

Applying the concept of dispositive, the analytical interest centers on the fact that the dispositive fulfills a function in relation to a tenacious problem. Therefore, the research ambition would remain to question whether the AER’s normalizing judgment practices are actually eroding or simply taking on new forms and thereby still governing subjectification processes in relation to transitions from primary and lower secondary school to youth education. Analysis might also focus on the implications of reconfiguring AER in terms of the interplay between the dispositives of law, discipline, and security.

Finally, the concept of actor-network would likely center analytical interest on a detailed mapping of the actors and processes leading to the reconfiguration of AER. Which controversies destabilized the existing network? What disconnections and new connections occur in the actor-network? Which technologies cease to exist, or change? What stabilizations and destabilizations are produced? And what heterogeneous reconfigurations of reality are established?

The three conceptualizations we have applied to the case above share an understanding of the problem and solution as parts of the same (re)configuration. It is the entire configuration of problem definitions, preferred solutions, and actors of various kinds that becomes the object of analysis and the key to understanding what AER is and what it does.

Although what are perceived as 'real' configurations can have major consequences in this case, for example for those students who risk being pinned down in certain positions, the three concepts at the same time make it clear that the specific format of AER is not a given. This seems important to underline because it opens up for criticism of existing formats and their effects by the various actors within the field. Furthermore, it provides opportunities to rethink and reconfigure existing practices.

The concepts developed by Foucault, Deleuze and Latour can help us understand the relationship between representations and presentations of the world. Where realist approaches to education and assessment would examine how phenomena such as AER reflect a world already categorized, ordered, and structured in particular ways, the three analytical concepts we have explored set out to examine how these phenomena also create and shape the world, albeit from different perspectives: Foucault problematizes and destabilizes the historically constituted present through genealogical analysis. Reality, he argues, could have been and can be different. Latour examines the relationships that are constantly working to maintain and stabilize – or destabilize – social configurations. Deleuze adds a virtual dimension, arguing that entities cannot be reduced to their actual relations: “The virtual is something ‘real’ without being actual, ideal without being abstract,” (Deleuze, 1994: 208) thereby also implying that the present as is contains alternatives and potentiality.

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