

## English summaries

### **Elisabeth Kring:** School strike for climate and Hannah Arendt

School strike for climate was initiated by Greta Thunberg, who went striking alone outside the Swedish parliament in August 2018. A year later, millions of people were striking around the world. The message of school strike for climate highlights the lack of action on behalf of politicians and adults with regard to climate change and its effects. In this article, the phenomenon of school strike for climate is approached and read through Arendt's ideas about politics, acting and thinking. Arendt's notion of politics is that it is constituted by speech and acts, and that it concerns our common world (that is, not issues that are associated with a private sphere). Arendt argues that when we act, a space of appearance opens up. This is an intersubjective space, where we appear to each other as unique individuals, and where something new takes place. Although Arendt did not pay much attention to children and placed them in a private sphere rather than a public one, I argue that her thoughts on politics are relevant in regard to school strike for climate. I propose that school strike for climate can be seen as both *demanding action* (from others, in this case adults and politicians) and *being action* in itself in an Arendtian sense. In a similar manner, the school strikes position the child in two ways in regard to politics. Children should not *have to* be political actors, but they *may* be, if adults do not act.

I read the school strike for climate as a space of appearance, where children appear to each other as well as to adults. However, unlike Arendt but in line with Butler's development of Arendt's theorising, I put emphasis on the bodily and physical dimensions of the notions of action and space of appearance. It matters that the striking students are children. I argue that school strike for climate cannot be properly understood if the (child) bodies of the striking students are not being considered. The school strike message emanates from a child subject position, containing demands that the future

must be saved, referring to the ontologically vulnerable situation children are in given their young age and the climate changes to come. Developing the notion of space of appearance further, the Earth as such can be seen as a space of appearance, and the strikes then not only constitutes a space of appearance but also has one as its objective, a liveable Earth.

Another aspect of the physical dimension of space of appearance in relation to school strike for climate, is that it takes place out in the streets and not in the enclosed space that class rooms constitute. The striking students urge politicians and adults to listen to scientific facts about climate change, yet, the students leave a space marked by facts – school – to be present at the heart of the public space instead, outside parliament buildings. Notably, school is deemed to be a less strategic space to be in compared to a public arena when the mission is to save the future. Closely linked to this judgement, is the school strike message that education, with its future-oriented temporality, becomes meaningless if there is no future. This is analysed in the article by using Arendt's distinction between knowing (science) and thinking (meaning). It is argued that school strike for climate highlights the need for thinking in the Anthropocene, and a type of thinking that leads to action regarding climate change.

**Stefan Bengtsson:** Curriculum theory after idealism: the return of the object of education in the Anthropocene

This paper makes the argument that historical traces of idealism render the possibility to think the object of education impossible in education thought. The paper as a whole makes the argument for the importance of (re) introducing the notion of the object of education as distinct from the notion of education content. Idealism's specter undermines this possibility to think the object of education, as it is always already conceived as part of historical reality and consequently conceived as a content of education that has an educative substance that is relative to that historical reality.

The paper substantiates this argument by interrogating the conception of the content of education in two education thinkers, Wolfgang Klafki (1985, 2012) and Peter Menck (1986). While both thinkers are not primarily informing Swedish conceptions of Didaktik, both, are interpreted as giving voice to a generalizable notion of content as informed by idealist thinking. The analysis shows here how the “unlocking” of the educative substance of the content of education is conceived in terms of a symmetric relationship, where the process of learning unlocks the educative substance of the content of education and the subject is unlocked in relation to the “reality” of the content of education. Given this symmetric relationship in the process of

unlocking, the distinction of content and object of education collapses as the content of education is perceived in terms of the historical reality of that object. That is to say, the object of education is always already the content of education in its unlocked reality in the historicity of human activity.

Given that the object of education is always already thought of as the content of education, the idea of an object of education is absent from education thought. In addition, the paper makes the argument that the very idea of the object of education becomes taboo as the very difference between the object of education and the content of education undermines key ambitions and hopes invested into education as a historical and political project.

Drawing on recent scholarship in the field of environmental education research, that aims at rehabilitating a notion of the object (Bengtsson, 2018; Saari & Mullen 2020), the paper argues for the need to rethink the project of education as aligned with the Enlightenment objective of demystification. It argues for a remainder of the object that is not congruent with the content of education and sees this object as inherently uncanny (cf. Saari & Mullen, 2020). It is uncanny in the sense that it not only limits notions of “demystification” by highlighting a remainder in terms of not yet demystified but undermines the position of the referent of the object in relation to content.

The need for acknowledging that the object of education is not reducible to a passive or stable background of nature for the human project of demystification is here made in line with recent critiques that draw on the notion of Anthropocene (Malone & Truong, 2017; A. Taylor, 2017; C. A. Taylor, 2017, 2020). The Anthropocene and the associated great Acceleration (Steffen et al. 2015), are interpreted as an impetus to rethink education and to provide an opening for thinking forms of agency of education content that is beyond or irreducible to human appropriation and control. The paper makes an argument for an opening of rethinking education with a focus on how individual processes of education in terms of *Bildung* relate to objects of education. The educative substance of these objects is seen as not congruent with the educative substance ascribed to the content of education as determined by that content's historical reality in terms of past human engagement. The argument to break with the taboo to think the object of education is also a plead to reengage with the uncanny depth of the object of education as it forces us to rethink education in face of the awareness that humans have become a planetary actor as well as the entailing collapse of nature as the unchangeable background for human activity.

**Iann Lundegård and Helen Hasslöf:** The Anthropocene and Education  
– relational encounters and democratic processes

It is increasingly quoted that the state of the planet earth now enters a new epoch; The anthropocene – the age of the human. In addition to the geological definition, this concept also highlights a dawning paradigm shift in the human's position as a terrestrial being. At the present time our journey on the planet is defined as increasingly unsustainable. Declarations from a united scientific community are now expressing the necessity to bring about revolutionary changes in a short time and to an extent we have not seen before. Here the role of education is also often highlighted as most important. In this article, we mainly invoke the French philosopher Bruno Latour's reasoning about the consequences of the anthropocene for the human need for relationships and belonging. Or formulated as a challenge to be confronted with in school: How can education contribute to creating relationships with "the more than human" where humans are an integral part of the living and material processes of the biosphere?

Using three concrete examples from two schools and with theory and analytical focus drawn from pragmatic perspectives on communication, we explore Latour's demand of "The terrestrial". This is illustrated in three examples of students' encounters and meaning-making with nature.

In the first example, we describe an encounter between the students at a primary school and the bees they handle in the school's beekeeping. In this illustration a distinction between a relational and an instrumental encounter with nature is made. Here we discuss how the relationship between humans and the "more than human" can be understood from the pragmatic perspective of transaction. Within this the creature that appears in front of us oscillates between sometimes appearing as an object of study and sometimes as a fascinating fellow organism, a life form among others with which we humans share our living space.

In the second example, we visit some students who are studying the Roman Snail they collected from different places in their "school forest". With this illustration, we show what is happening in an immediate encounter between animal and human and further discuss the mutual communication between the students and different forms of life. Based on this reasoning, the value of creating open nature encounters is highlighted.

In the third example the students are working on a contract with the municipality on how their "school forest" should be managed. It was all designed in a democratic process and here we show how Dewey's perspective on democracy as "a form of life" can be used to organize such a process based on students' sense of care, responsibility and interaction with nature.

In this article, we have thus allowed three teaching situations to serve as illustrative examples on how to develop a pedagogy/didactics in the direction towards what Latour discusses as the "terrestrial".

With the help of these, we have demonstrated how such a need can be linked together with some central parts of pragmatic theory. – How a consequence-oriented view of communication can be used to demonstrate our possibilities for exceeding species boundaries. – How open encounters with nature can make our inescapable presence visible in the immediate. – How a transactional analysis can be used to explain the existence as always relational. And finally. – How democracy when considered as a "form of life" can be used for the analysis and planning of activities that open up responsibility, care and our relatedness to the more than human.

In addition to this theoretical discussion, we also try to make visible how these starting points can be useful to develop students' experiences of belonging to the biosphere through a pedagogical context.

The anthropocene is now discussed as a concept that highlights a period in Earth's history where human progress has shaken all life on the planet to its foundation. Additionally, the anthropocene could also be interpreted as a period that forces the human to new insights and an ethical stance on how we want to relate to the biosphere we unreflectively are a part of. In this article we have strived to highlight some examples from the role of education.

**Emilie Moberg and Bodil Halvars:** Terrestrial experiences, knowledges and connections with weather and climate. The preschool in Anthropocene

The present paper aims to study the knowledges and experiences that preschool teachers raise when it comes to children's explorations of weather and climate in a preschool context. Moreover, the study aims to shed light on the didactic considerations which become actualized in conversations among preschool teachers. The empirical materials consist of participant observations of a meeting between preschool teachers as part of a network focusing on didactic issues on weather and climate. The theoretical framework of the study is based on the concepts of the "terrestrial" and "nature-culture" as developed by Bruno Latour and Donna Haraway. The findings of the study show that the knowledges and experiences that preschool teachers raise as particularly important are about bodily experiences of nature and weather, but also about a consciousness on the human participation in the ecological system. Moreover, the study shows that the conversations among preschool teachers actualize the importance of science

knowledge, i.e. learning about weather and climate. Ultimately, the study problematizes and adds to the polarized views of encouraging children to 'learn with' rather than 'learn about' animals and nature prevalent in previous research on didactic considerations on weather and climate in early childhood education.

### **Eva Ärlemalm-Hagsér:** Preschool education in the Anthropocene

In Sweden preschool children have historically been seen as playing an important role in the quest for a better society and the development of a sustainable future (Ärlemalm-Hagsér, 2013). In the latest Swedish National Curriculum for Preschool (National Agency for Education, 2019), the political concept of sustainable development (economic, social and environmental) has been added. It is stated that sustainable development is a fundamental value that everyone who works in a preschool shall strive to promote. More specifically, the children in Swedish preschools should be given opportunities to develop an increased sense of responsibility for and interest in sustainable development, learn to be active participants in society, understand how people, nature and society affect each other, and understand how different choices that people make in everyday life can contribute to sustainable development.

This article presents a narrative study on preschool education with a focus on the role of preschools and preschoolers' learning in the era designated as the Anthropocene. Specifically, questions have been studied about what kinds of knowledge are seen as crucial knowledge content for preschool children and what the role of preschool is in the Anthropocene. The study has a critical theoretical foundation, and the empirical data consists of four preschool teachers' stories about their work with education for sustainability in preschool. This theoretical foundation, which comprises (i) an awareness of the human impact on nature, (ii) a transactive perspective, and (iii) a transformative approach (Kopnina 2020; Jickling, 2017; Jickling & Sterling, 2017; Säfstöm & Östman, 2020; Östman et al. 2019), has served as the basis for the analysis of preschool teachers' narratives.

The findings shows that the term "Anthropocene" does not occur in preschool teachers' descriptions of the education they provide. However, in their stories, an idea of education emerges where the work for a sustainable Earth is seen as fundamental content, and where children's learning involves learning about sustainable resource management, recycling and learning in and about nature. Furthermore, the preschool teachers describe how governance and leadership at the municipal level affect the preschools' work

with sustainability. All of the participating preschool teachers stress that knowledge among management and preschool staff is crucial for enabling conscious and well thought-out work for sustainability. Three of the four preschool teachers describe perceiving the governance and leadership in their municipality as weak. This creates difficulties for the work with a sustainable present and future in the preschool activities.

In summary, the concept of the Anthropocene is not mentioned in preschool teachers' stories. On the other hand, stories of human impact on the earth are prominent, and teaching children to handle materials carefully and to sort and recycle waste with the aim of conserving resources is seen as a way to reduce this impact and is considered important knowledge content. Learning in and about nature also appears, though to a more limited extent. What understandings and implications do the results offer in relation to preschool education in the Anthropocene? We can conclude that the preschool, despite the challenges mentioned above, is taking seriously the human impact on the earth and its consequences. First, we can observe a critical pedagogical approach in relation to unsustainable management of materials and resources, which is being conducted together with the children. Secondly, children's learning about and relationship with nature is seen as important and crucial to their developing an understanding of sustainability. Thirdly, the children have a large degree of influence and participation in a joint process of meaning-making and knowledge development involving both adults and children.

Previous research highlights the crucial importance of education in achieving a sustainable future (Kopnina 2020; Jickling, 2017; Jickling & Sterling, 2017; Säfström & Östman, 2020; Östman et al. 2019). Can the concept of the Anthropocene be helpful in this work? Perhaps it can, especially as discussed in the work of Steffen et al. (2007), but there is a risk of it becoming just one of many concepts with "pretensions of being salvation narratives" (Jickling & Sterling 2017).

As can be seen in the findings, the participating preschool teachers exhibit a strong commitment to educating preschool children for a sustainable present and future, but how this should be done needs to be further problematized and researched.

### **Hanna Hofverberg:** Remaking in the Anthropocene

We live in a new geological epoch – the Anthropocene. With this new epoch, defined as ‘the expansion of mankind’, humans have come to realise that we must change the way we live. For example, many argue that *remaking* rather than making is crucial. But what remaking activities aim for as educational

activities is far from evident. Based on a survey from 58 craft teachers' experiences of teaching remaking activities, this paper examines 1) possible teaching content of remaking activities, and 2) how this content can be understood in relation to the Anthropocene, that is, what is being remade, and how? The result identifies and describes seven different remaking activities: reuse, reduce, recycle, remake, repair, refuse, and reverse engineer. These activities are further analysed within the theoretical framework of skill/deskill/reskill to highlight how the content can be understood in relation to the Anthropocene. The results show how the remaking contents are not only intertwined with history but also take new forms and change. This in turn creates many opportunities but also certain challenges for teaching and learning.

**Frida Marklund:** To Defamiliarize contemporary Antropocene - artistic methods in compulsory school

According to UNESCO (2019) education for sustainable development needs to prepare students to face complex challenges such as poverty, environmental threats, reduced biodiversity and social and economic inequalities. However, working with sustainable development in schools is not without its problems and challenges. Recent research highlights the need for critical perspectives within education for sustainable education, as well as a need for further problematisation of the basic assumptions that education builds on (Jickling & Wals, 2008; McKenzie, Bieler & McNeil, 2015). If not, education for sustainable development risks reproducing certain norms and values and impose desirable identities on students, informed by existing power structures in society (Ideland & Malmberg, 2014; Jickling & Wals, 2008; Hellberg & Knutsson, 2018; Sjögren, 2019). From this starting point, the aim of the article is to theoretically examine how defamiliarization can be used as a method to enable students to problematize and develop a critical perspective in education. Defamiliarization is an artistic concept that describes an intentional delay of perception with the purpose to create estrangement to a subject matter, phenomena or motif, often used in visual art. The questions of the article are: In which ways can defamiliarization be understood as a pedagogic method? How can defamiliarization be used as a critical perspective in education?

The article is based on visual art education and its artistic methods and uses a school project from an empirical study in lower secondary school in Sweden as an example to explore the relevance and use of the concept in an educational setting. In the school project, that also included other school



subjects, students created pictures and poems in relation to the theme human rights. Their pictures and poems were also by the end of the project exhibited in a public library under the title "What's the difference". The analysis shows that defamiliarization appears to be useful as a method, both when taking part of art and creating art, but also and as alternative form of teaching. The pictures that the students produced create a defamiliarizing effect in various degrees and ways. Their pictures can both defamiliarize the theme of human rights and, at the same time, reproduce stereotypical expressions and motifs, based on their own assumptions. The exhibit created defamiliarization for the students in the sense that their pictures gained another value and were visible for others outside the school, which otherwise is the most common place to present their pictures. The choice of place, or educational setting, in relation to the theme/phenomena at hand, is an important aspect if one wants to create a defamiliarizing effect towards the pedagogy used. Defamiliarization can also be a tool to critically examine different phenomena, but requires mindful and thought through planning and staging from the teacher's part. Students need support and relevant, guiding questions from the teacher in order to discover new aspects and nuances of a theme, or in order to shift their perspective or discuss stereotypes. An emphasis on goal-oriented learning or grades can obstruct the artistic and aesthetic process and lead to instrumental interpretations of the assignment. Working with artistic methods can be challenging in schools, but can also offer new perspectives.