

Chapter 7

Critical Pluralistic Teaching: An Educational Approach to Transformative Change



Ásgeir Tryggvason  and Johan Öhman 

7.1 Introduction

Things are clear. There are enormous environmental and sustainability problems roaring at the societies we live in. For some of us it is a roar in the distance, and we are told that its creeping closer, while for others it is turning their lives upside down, forcing them to move from their homes and creating long lasting droughts that ruins crops and livelihood. Writing from a global North setting, and from a fossil fuel-intensive society in northern Europe, there is an urgent need for a radical transformation of the societies we live in. There is a need for a transformation that substantially transforms production, consumption, ways of living, deeply embedded discourses and habits, and perhaps also values. As educational researchers in the field of environmental and sustainability education (ESE) we are occupied with the question of what role education has, and should have, in the radical transformation that we so certainly need. We are not only seeing education as tool or important actor in a green transformative change, but we are also approaching the question of transformative change in educational terms. Because, at the heart of education and teaching lies fundamental normative questions about continuity and change: What in current society is worth passing on to future generations? What change do we want to see in the future generation that our society has not managed to achieve? Given the need for radical transformative change of current societies it is clear that the form of this change is not only a question that is placed on education to handle but is also a truly educational question in the senses that it concerns learning as well as societal continuity and change (Boström et al., 2018).

Á. Tryggvason (✉) · J. Öhman
School of Humanities, Education and Social Sciences, Örebro University, Örebro, Sweden
e-mail: asgeir.tryggvason@oru.se

J. Öhman
e-mail: johan.ohman@oru.se

Transformative change for a sustainable society is an educational question in at least two ways. First, it is predominantly in education that the new generation jointly encounter and learn about current environmental and sustainability problems (ES-problems). For some students, it is only in the classroom that they learn about ES-problems and have the opportunity to discuss them with others. Thus, for some it is in education that they become aware of the crises that are closing in and it is in education they face these challenges together. Second, it is in education, as a collective endeavour of change, that new ideas, new habits and new ways of living can take root. When the new generation encounter ES-problems together, discuss them and learn about them, then new initiatives for change can develop—because education is always revolving around both continuity and change.

The intricate relation between education and transformative change is also apparent in its nexus with democracy. While we know there is a need for a transformative change, we do not know exactly what kind of transformative change is required in face of current environmental crises. However, we know that a change that is transformative needs to be both wide and deep, meaning that it needs to address everyone in society in a substantial way (cf. Boström & Lidskog, 2024; Linnér & Wibeck, 2020). We also know that as a process which changes individuals and society in a substantial way is not a process that is characterized by more of the same but requires new knowledges, new habits and new ways of living together. In other words, we know that transformative change is a process of *learning*, both on an individual and societal level (Boström et al., 2018; Van Poeck et al., 2019). Given these parameters we argue that transformative change should be a democratic process as it affects everyone, albeit in different ways. A broad participation in transformative change is therefore necessary if it is to be a lasting process and not fall into backlashes because people experience it as something forced on the many by the few (cf. Blythe et al., 2018).

Moreover, as we do not know how to achieve a sustainable society there is a need for plural perspectives on values and ideas—the transformative change depends on creativity and the possibility for new ideas to grow. Also, when it comes to values no one can be said to possess greater knowledge than anyone else of that is desirable. For this reason, a transformative change of society cannot be undertaken by few, or by an elite, but must be democratic at its very roots. Otherwise, there is a looming risk that the change never will be transformative but just more of the same. Thus, one of the few things we know about the characteristics of the transformative change needed is that it is a democratic process of transforming society towards sustainable ways of living. And it is here that we see the crucial role education must play in this process. It is in education, and mass schooling, that the new generations come together to discuss, explore and learn about current ES-crises and problems. In other words, the school is a democratic arena that has the potential to involve *the demos* in the process of transforming society. And as a place for learning, the classroom is where the new knowledge, habits and ways of living can both be learned and developed. For us as ESE researchers, a key question is how education and teaching can take on this prominent position in transformative change for a sustainable future.

Against our outline of the intricate relation between education and transformative change, we see that education needs to be both critical and pluralistic. Critical in the sense that it is not enough with more of the same when it comes to what we should pass on to future generations. Education must enable students to critically scrutinize the foundations, norms, practices, habits and values of current unsustainable societies. It must also be pluralistic in the sense that it needs to involve everyone so that a multitude of perspectives can both be learned and developed. Without pluralism there is no room for creative new ideas to evolve.

In this chapter we outline and discuss critical pluralism as an educational approach to ESE. We start by describing how pluralistic approaches have taken shape in relation to more normative and fact-based approaches in ESE. Thereafter we elaborate on what a critical pluralistic approach could mean more concretely in teaching practice. A closing argument of this chapter is that even if a critical pluralistic approach gives certain concrete direction for ESE teaching, it also needs to be understood more broadly as a way to contemplate the relation between education, democracy and transformative change. Thus, the educational approach we put forward is not a solution to environmental problems, but an entry point to a sincere engagement in the relation between education, democracy and transformative change.

7.2 Pluralism Is the Starting Point

Our starting point in seeing societies as pluralistic is fundamental to our understanding of what a society is at all. Put differently, the pluralism in society is not an “add-on” or a feature that societies sometimes have and sometimes not. Following John Dewey’s (1916, 1939) pragmatism, pluralism is the very fabric of which society is built. And in democratic societies, pluralism of individuals and communities is the society’s very life nerve. A suppression of pluralism is therefore a suppression of democracy. Consequently, for Dewey (1927) pluralism is not an obstacle to overcome in democratic societies. Pluralism in society is evident in many ways. Individuals have different ideas of what is a good life, and also value things in life differently (e.g. family, work, politics, sports). They also have different ethical or religious conceptions of which actions are morally right, and which actions are wrong. Moreover, individuals have different political ideas, hopes and visions of what a good society looks like and how we can achieve it. However, pluralism is not just an aggregation of individual differences, societies also consist of communities and cultures who differ from each other. Communities and cultures also promote different ways of living, values as well as moral and religious beliefs. While pluralism can be used to describe layers of differences within society, it should not be understood as a description of static or sedimentary differences. On the contrary, the fact that individuals have different opinions on how their society should develop is the fertile ground that makes democracy grow and enables individuals to expand their perspectives and understandings. This idea, that the individual’s values, opinions, morality and growth is dependent on (but not decided by) society, is expressed in the works of

Dewey (e.g. 1916, 1938). Writing on Dewey's philosophy and its relation to Hegel's philosophy, James Good and Jim Garrison (2010) state that: "In order to reason for herself about morality, the individual must live in a context of social norms that give content to abstract moral concepts" (p. 49). Thus, pluralism is not a static aggregation of individual preferences, instead, the very ideas, values, and morality that individuals come to hold are formed through open communication with others. It is in communication with others that the individual's values come to matter, it is also in the open communicative encounters with other perspectives that individuals can reconsider their own perspectives, which is crucial for societal development and growth.

For Dewey, this relation between growth and communication is key to his understanding of democracy. When defining "criteria" for democracy, Dewey turned to pluralism and to the idea that the democracy within a group is dependent on the groups' internal openness to differences as well as its external openness toward other groups (cf. Biesta, 2002; Mårdh & Tryggvason, 2017). Thus, democracy depends on internal and external openness towards others. Here it is important to emphasize that Dewey's notion of pluralism is not an idea of individualism but starts in the very assumption that people live in association with each other. In *The Public and Its Problems*, Dewey (1927) wrote: "There is no sense asking how individuals come to be associated. They exist and operate in associations" (p. 23). Therefore, democracy is the communal life where individuals both differ from each other and belong together in associations. For Dewey, democracy is not just one way among others to organize society, but democracy is in the strongest sense: "the idea of community life itself" (p. 148).

When we bring this understanding of pluralism in relation to the transformative change that is urgently needed, it becomes clear that such an undertaking is not possible without pluralism, in terms of differences and open communication between those differences. It is also clear that a transformative change is not possible if not current ways of living and thinking are critically examined in open communication. It is not just because open communication enables individuals to reconsider their own position and perspective that it is necessary for a social transformation, the open communication is necessary because it is the very soil in which new ideas and ways of living can grow. And without other ways of living, other habits and other forms of production and consumption, there will be no change in sight that can be called transformative.

7.3 Pluralistic ESE

Since the late 1990s, a pluralistic teaching tradition has been empirically identified as one way in which teachers teach sustainable development (see Öhman & Östman, 2019; Skolverket, 2001). As we will further describe below, this form of teaching can be contrasted with two other teaching traditions: the fact-based tradition and the normative teaching tradition. What we want to emphasize here is that while the

pluralistic teaching tradition is an empirical finding in ESE research, the critical pluralistic approach which we put forward in this chapter is a normative standpoint on what we believe is a desirable ESE teaching. With this standpoint, we want to specifically underscore the need and role of criticality in ESE. The notion of critical should here be understood in terms of critique—“a carefully expressed judgment, opinion, or evaluation of both the good and bad qualities of something”, rather than criticism, which has a connotation of “remark or comment that expresses disapproval” (Merriam-Webster, 2025). To have a critical approach in ESE is therefore to open for a scrutinizing gaze and a careful and honest examination of different values, perspectives, norms, habits of thinking and knowledges, including those aspects of our lives that are deeply rooted and taken for granted (see Lindgren & Öhman, 2019; Öhman & Tryggvason, 2023).

Now, turning to how ideas of pluralism have developed within the ESE research field a suitable starting point is Bob Jickling’s (1994) article, with the somewhat provocative title “Why I don’t want my children to be educated for sustainable development”. In that article, Jickling (1994) formulated a sharp critique of the normativity within education *for* sustainable development (ESD). His argument did not target any specific values found in ESD at the time, but at the normativity as such and the very idea of education *for* sustainable development. ESD, Jickling argued, is based on values and perspectives that are predefined and then it is expected that students subscribe to these values and perspectives. Hence, the argument is that this kind of normativity, where education is *for* sustainable development, “is contrary to the spirit of education” (p. 6). In contrast to the normative direction found in ESD, Jickling formulates what we understand as the contours of a pluralistic approach:

For us the task is not to educate for sustainable development. In a rapidly changing world we must enable students to debate, evaluate, and judge for themselves the relative merits of contesting positions. There is a world of difference between these two possibilities. The latter approach is about education; the former is not (Jickling, 1994, p. 7).

During the last three decades that have passed since Jickling’s critique of ESD, pluralistic teaching has been a focal point for many studies in the ESE research field (Tryggvason et al., 2023). An important study, which have laid the ground for both empirical and theoretical studies of pluralistic approaches, is a quantitative study of different teaching traditions in Swedish schools, conducted by Johan Öhman and Leif Östman in the late 1990s (see Öhman & Östman, 2019; Skolverket, 2001). In this study, they identified three teaching traditions of environmental and sustainability issues through the Swedish school system, from primary to upper secondary schools. The three traditions are: (i) fact-based tradition, (ii) normative tradition, and (iii) pluralistic tradition.

In describing these three traditions, Öhman and Östman (2019) show how they differ both when it comes to how ES-problems are understood and how they should be taught in schools. The latter aspect means that the three traditions provide different answers to the didactic questions: *what to teach?* and *how to teach?* as well as the overarching question about the aim of ESE: *why teach?* Moreover, what also separates

the three traditions from each other is that they are built on different understandings of the relation between facts and values in education.

In short, the fact-based tradition is based on the understanding that facts and values must be separated. This stems from a view that science is a value neutral process of producing facts and ESE should therefore be about teaching students these value-neutral facts. A consequence of this is that moral and political questions are left to the students' private sphere. The normative teaching tradition, on the other hand, is based on an understanding that there is a causal relation between facts and values. Within this tradition the facts about sustainability issues that science produces are seen as having moral implications. For instance, given the state of the current climate change, it follows that students should adopt to a more climate friendly and sustainable lifestyle. Teachers should therefore not just teach students about the facts but also foster sustainable values and mindsets.

In the pluralistic tradition facts and values are both seen as important aspects of ES-problems that need to be critically scrutinized and discussed *in* education (Öhman & Östman, 2019). ES-problems are seen as political problems that stem from conflicting values and ideologies, which implies that these problems cannot be solved just by getting the facts right. Thus, even if students understand the facts correctly when it comes to ES-problems, they can have different moral and political ideas on what should be done about the problems, and these ideas must have a place in the ESE classroom.

Building on this categorization of three different teaching traditions, several empirical studies have investigated the traditions and what they mean in practice, and what their consequences are for students' learning (Andersson, 2017; Olsson et al., 2022; Rudsberg & Öhman, 2010, 2015). Empirical studies of pluralistic teaching approaches have not only provided us with deeper insights into what it means to teach pluralistically, and how students learn from it, but they also show how facts and values are simultaneously intertwined in students' encounter with sustainability issues and problems in the classroom (Rudsberg et al., 2013). Moreover, during the last decades the pluralistic tradition has also developed theoretically, where immanent critique has opened for different branches of pluralistic ESE (Lindgren & Öhman, 2019). In that sense, it is perhaps more correct to talk about pluralistic approaches rather than "the pluralistic approach" (Tryggvason et al., 2023). One such branch is what we here call the critical pluralistic approach to ESE, which will be further developed below.

7.4 Critical Pluralistic Teaching

In this section we specify what a critical pluralistic approach could mean more concretely in ESE teaching practice, and what it means in relation to pluralism. To do this, we draw on the Nordic/German *Didaktik*-tradition (Klafki, 2000; Öhman, 2014) with focus on what critical pluralistic education could mean in teaching practice,

such as choosing content and in supporting students' learning and development of arguments.

7.4.1 *The Critical Task of Choosing Teaching Content*

In schools, the curriculum and syllabuses describe what content the teacher should teach, and in many cases also what the students are expected to learn when encountering this content. Yet, the content and the meaning of the content is never fully specified and there is (almost) always an openness for teachers to professionally decide how to teach the content. For example, in Swedish upper secondary schools there is a course in natural science where one bullet point of content that student should learn about is "Different aspects of sustainable development, such as consumption, resource distribution, human rights and gender equality" (Skolverket, 2022, our translation). The task for the teacher is to choose how to enact the content and to identify what aspects are crucial for students to learn, and from there decide what examples can be used to illustrate these crucial aspects. In this process of transforming the content from the syllabus to lessons, the teacher articulates the meaning of the content and plans how the students should encounter this specific content. This rather practical aspect is however intertwined with fundamental questions about education and teaching content (or what is called 'Bildungsinhalt' in German).

In his seminal work on didaktik analysis, Wolfgang Klafki (2000) describes how the teacher's task "is to elucidate which aspects of the content contribute to Bildung, to explore what it contains that can or should comprise education, Bildung" (Klafki, 2000 p. 145). In this context, Bildung should be understood in terms of human growth and expanding freedom that cannot be fixated beforehand in terms of measurable outcomes or results. Instead Bildung is an anticipation that guides education toward greater human flourishing and freedom. It is by turning the gaze toward the teaching content, and its relation to Bildung, that Klafki (2000) formulates one of the core questions for didaktik analysis:

What constitutes the topic's significance for the children's future? [...] To clarify: Does this content play a vital role in the intellectual life of the adolescents and adults the children will become, or is there justification to assume that it will, or should, play such a role? [...] (p. 152).

What we see here is how the didaktik tradition addresses the future by turning to the content, rather than formulating predefined goals. One key question is what kind of meaning, in terms of both knowledges and values, the teacher wants the students to establish in relation to the content. This didactic process requires reflection from the teacher and presupposes an autonomy where the teacher can enact the teaching content based on the own professional judgment (see Klafki, 2000; Öhman, 2014).

However, the meaning that the teacher chooses is not the only meaning that is provided to the students. Following the work of Douglas Roberts and Leif Östman (1998) the teaching content is always accompanied by a surplus of meaning, which

Roberts and Östman call *companion meaning*¹ and where the meaning should be understood as both knowledges and values. Companion meanings should therefore be understood as the knowledges and values that implicitly comes along with the content (see also Öhman et al., 2016). For instance, when a textbook describes how “our lifestyles emit greenhouse gases and fuels climate change”, it provides students with knowledge of the relation between greenhouse gas emissions and climate change. However, what implicitly accompanies this knowledge is an idea of a unified “we” which suggests that we are all equal when it comes to greenhouse gas emissions. It also implies that we are all equally responsible for causing climate change. This companion meaning might make it more difficult for students to identify the global inequalities and power relations that exists, both when it comes to causes and consequences of climate change.

The companion meanings that come with the teaching content are not random or coincidental but are related to, and structured by, wider societal discourses. In that sense, companion meanings are interwoven into the narratives told and retold through education. Thus, even if students’ meaning-making process is an open process, it is not chaotically open to any random meaning—teaching has a direction, an intended meaning, which is accompanied by unintended knowledges and values (companion meanings). This establishes conditions for what meanings students are able to make out of the content presented to them. Or put differently; the intended and unintended meanings of the content shapes what students can and cannot learn from the lesson (see Öhman, 2014; Öhman et al., 2016; Roberts & Östman, 1998). This brings us to the normative question of what we deem desirable that students learn. Choosing teaching content is therefore, at its core, an ethical question that is answered by the teacher’s ethical and professional judgment.

If we reflect on this didactic process of choosing teaching content from a critical pluralistic perspective, then certain critical questions can be chiselled out. For a teacher who wants to take on a critical pluralistic approach to ESE, these questions could be asked when reflecting on the teaching content:

- What societal norms are represented in this content?
- What values accompany the key concepts and theories of this content? (What are the companion meanings to the content?)
- What discourses are dominant in the public debate relating to this content?
- What kind of discourses might the students already be tapped into that relates to this content?

These are examples of questions that the teacher can use to critically reflect on the selection of teaching content (cf. Öhman et al., 2016). They are in line with Klafki’s (2000) critical-constructive Didaktik, which underscores the need of critical reflection over the relation between teaching content and societal norms. The questions can be used retrospectively so that the teacher reflects on what the students have been

¹ Companion meaning is closely related to Dewey’s (1938) notion of collateral learning, but with the difference that companion meaning is about the meanings provided to students, and not to the meaning or learning that individual students experience.

taught and what kind of meaning they made out of that teaching. What these questions have in common is that they challenge perspectives that are taken for granted and place them under the critical gaze of the teacher. The questions can also open for the teacher's critical self-reflection about what societal norms the teacher represents and what discourse the teacher might be caught up in that relates to the teaching content.

If we pose these questions to the concrete example above on the “different aspects of sustainable development” from the Swedish upper secondary school, then we can see what these questions mean more concretely. For example, a societal norm that the content represents is that there is a harmonious relation between the different aspects of sustainable development. This could be in common phrases such as “we need both economic development and social development that is eco-friendly”. Such phrases tend to omit the tensions and conflicts between different political ideologies on economic and social development and their relation to ecological limits of the planet. Put differently, a harmonious framing of sustainable development could have a companion meaning of “we all agree on these issues” (see Öhman & Öhman, 2013; Sund & Öhman, 2014). At the same time students could be tapped into societal (or populist) discourses where the very notion of sustainability connotes a top-down policy perspective. This could be that sustainability is seen as something that the elites and politicians try to push on to “regular people” that neither can afford higher gas prices or electric cars (for empirical examples, see Urberg, 2025; Urberg & Öhman, 2024).

7.4.2 *Teaching Plural Perspectives*

So far, we have discussed the critical task of choosing teaching content. Let us now turn to task of teaching plural perspectives in ESE. On a general level we see three main reasons to provide students with multiple perspectives on the same sustainability issue:

- **Knowledge:** In order for students to get a richer understanding of the teaching content they need to encounter multiple perspectives on the same topic.
- **Compensation:** Students will encounter some perspectives on the topic outside of school (parents, media, friends, etcetera). The teacher should therefore provide perspectives on the topic that students would not otherwise get.
- **Position:** If students are to be enabled to position themselves in relation to the issue, then they need to encounter multiple perspectives if this is to be a genuine and free positioning.

If we continue with the content above on “different aspects of sustainable development” there are myriad possible lessons to be developed out of this content. The teacher could open up for different meanings of what “development” means and let students explore, compare and scrutinize these perspectives. Here, for example, students could encounter ideas of “de-growth” in contrast to more traditional notions

of the economic aspect of sustainable development. For some students, encountering multiple perspectives on a topic could relate to all three reasons stated above. To discuss de-growth in relation to traditional economic development could provide them with deeper *knowledge* of the content. This could for example enrich the students' understanding that development and growth can be different concepts, and that development could be possible without traditional notion of economic growth. To learn about de-growth could also function as *compensation* in relation to the perspectives they otherwise encounter. This compensatory aspect is not only about adding what students otherwise would miss but is also about disturbing their preconceived understandings by bringing in other perspectives. By disturbing their preconceived understandings, the teacher can push them out of their routinized habits of solving school task and guide them into longer processes of inquiry where they must reconsider their rooted perspectives on sustainability issues, such as growth (Östman et al., 2019; see also Tryggvason et al., 2022). And lastly, bringing up de-growth could enable students to *position* themselves in relation to the overarching question: What kind of development in this society is desirable? Such a positioning is not simply about having an opinion or expressing a belief in sustainability issues. Positioning oneself in relation to current ES-problems and societal development should not be reduced to "say what you think" or letting students have sudden whim in the matter. On the contrary, positioning is about developing a position based on well-crafted arguments and genuine considerations, and the place to do that is in education, under the guidance of a teacher.

7.4.3 *Developing Discussions and Arguments in ESE Teaching*

It goes without saying that when students encounter teaching content, then they already carry experiences and perspectives that shape their encounter. Students in secondary schools also bring with them experiences of hundreds of previous lessons and tasks which shape their expectations and approach to what it means to study something. From our pragmatist and didactic perspective, it is *in* the students' encounter with the content that the meaning of the content comes into being, in other words it is a process of meaning-making (Öhman & Östman, 2007). This meaning-making process is not something other than learning, it *is* the process of learning knowledges and values. Also, as it is a process where the students make meaning, it follows that it cannot fully controlled by the teacher (cf. Biesta, 2016). Thus, what we have here are two components that constitute a starting point for teachers who want to take on a critical pluralistic approach to ESE. The first is that students bring their own experience into the classroom when making meaning out of the content. Second, this meaning-making process is undetermined where the outcome of the process cannot be fully fixated beforehand, even though the process is not totally open to any random meaning (Öhman, 2014).

Let us now outline what this means from the vantage point of critical pluralistic ESE. Even if the students bring experience and perspective to their encounter with the content, it is not the role of the teacher to take these experiences and perspectives at face value. As with the teaching content described above, the teacher also needs to take a critical approach to the perspectives that students bring into the classroom. This could be that the teacher disturbs the students' worldviews and ideas by putting them in problematic situations where their routinized habits of thinking are not enough to solve the problem they are facing. By challenging and critically scrutinizing the students' perspectives and worldviews the teacher lead the students out of their routinized habits and into a process that requires inquiry and reflection. This also means that the teacher challenges what students take for granted and opens them up to other ways of thinking and approaching problems (Östman et al., 2019).

Building on previous empirical studies on how teachers can address students' opinions and arguments in pluralistic discussion of sustainability issues (Rudsberg & Öhman, 2010), we here highlight four ways that are specifically important within a critical pluralistic approach. First, the perspectives and beliefs that students bring into the classroom might not always be factually correct. Some ideas and worldviews are based on misconceptions, misunderstandings and sometimes on direct falsities. In a critical pluralistic approach, the teacher must *correct* students when they are wrong but must do so in ways that are sensitive and respectful to the students. Second, when students take a stand on sustainability issues it is important that the teacher tries to *confirm* it as a legitimate position (if it is a legitimate position). This could be done by clarifying to the student, and to the other students, what the position means. Third, while it is not enough to confirm the students position as legitimate opinion, the teacher also needs to help students *contextualize* their position by making them aware of what kind of discursive context their position belongs to or is surrounded by. This could be done by showing how this position is expressed in public debate and give examples of politicians or media personalities who express a similar position or standpoint. Fourth, and last, even though students express legitimate positions, based on correct facts, and are aware of their discursive context, the teacher may *challenge* their position. Challenging students' positions is both about enabling them to develop their position and enabling them to distance themselves from their own ideas, opinions and experiences (Rudsberg & Öhman, 2010). This doubleness can be seen as a dialectical process that goes back and forth where students in the process of distancing themselves from their position, also develop their own position. By developing their position, they can more firmly stand for what they think is right.

Given these tasks, it is clear that teachers have a crucial role to play when students discuss and formulate arguments around sustainability issues. Having a discussion in the classroom is therefore not just an open space for *expressing* opinions but is an educational space for *forming* opinions and *learning* how to develop solid arguments for them. In that sense, the classroom is a unique place compared to other places where places where sustainability issues are discussed because classroom discussions are led by teachers (Öhman et al., 2025).

7.5 The Boundaries of a Critical Pluralistic Approach

Above we have outlined what a critical pluralistic approach to ESE might mean when it comes to teaching practices. As described, this approach emphasizes pluralism both when it comes to teaching content and students opinions, as well as their critical examination. Given this, a critical reader could ask whether there is a risk that this pluralization can lead to an “anything-goes” kind of relativism (see Öhman, 2006; Wals, 2010). Is it, for instance, reasonable to open up for multiple perspectives on the causes of the current climate crisis? And is it reasonable to invite world-views that challenge ideas of democracy and equality? Our answer to both of these questions is no. Critical pluralistic ESE is not a relativist position, neither when it comes to knowledge nor values. The reason lies in two kinds of boundaries that shape the contours of critical pluralism: principal boundaries and practical boundaries (Öhman & Tryggvason, 2023).

The principal boundaries are constituted by *scientific consensus* and *democratic values*. The main perspectives that the teacher chooses and provides to the students must be grounded in current scientific consensus. For instance, the idea that the climate crisis is just a “natural” fluctuation of the solar radiation is not a consensus in the scientific community, therefore it does not qualify as a legitimate opinion or perspective on the climate crisis. The teacher could present these perspectives and let students analyse and discuss them, but as falsities. But when it comes to normative questions about the climate crisis, such as: “should countries in the global North take greater responsibility for cutting greenhouse gas emissions?” then multiple perspectives must be available for students to scrutinize and discuss. As the teacher possesses greater content knowledge than the students, the teacher is the arbiter of which questions are settled within this topic, and which questions are not. In other words, the teacher is the one who professionally decides which questions are factual and which questions are normative. This is where the practical boundary of pluralism appears. Based on the teacher’s content knowledge and knowledge about the particular students, s/he must decide how to practically draw the line between factual and normative questions. The principal boundary of scientific consensus guides the teacher’s professional judgment in this practical task. For instance, in some classes the teacher knows that it is possible to discuss and analyse falsities about the climate crisis without unintentionally legitimizing them as valid opinions. Likewise, the teacher would also know that this is not possible in other classes.

The second principal boundary is constituted by *democratic values*. Here we draw on the Belgian political theorist Chantal Mouffe (2005) who formulates the two values *liberty* and *equality* for all as the foundation for democracy. Those who subscribe to democracy, Mouffe argues, deem these values as desirable, but can at the same time have fierce disagreements over their meaning and how they are to be achieved. In a democracy, equality and liberty are settled, but their meaning is a normative question that is open to discussion and conflicting opinions. Here the teacher becomes the gatekeeper of not legitimizing opinions and perspectives that put the very idea of liberty and equality into question (see Öhman & Tryggvason, 2023). The practical

boundary related to this is then *how* the teacher should handle opinions that clearly go against the ideal of liberty and equality for all. Even though the principal boundary is about not legitimizing these values, the teacher can handle them in different ways. As with the scientific consensus described above, in some classes the teacher knows that it is possible to discuss and challenge the students' opinion openly without legitimizing their position. In other classes, the teacher knows that this is not a suitable strategy and chooses instead to talk to the particular student individually after class. Educational research can provide the teacher with different strategies, but the strategy must always be chosen in relation to the particular students and based on the teacher's knowledge of these students. Put differently, the practical boundary is constituted by the teacher's professional judgment and didactic sensitivity (Öhman et al., 2025).

7.6 An Approach to Education, Democracy and Transformation

We started this chapter by arguing that there is an intricate and close relationship between education and transformative change toward sustainability. We also pointed to how democracy is the nexus of education and transformative change. From this we outlined a critical pluralistic teaching approach as one branch of pluralistic ESE. This approach highlights four critical relations in ESE teaching. The first is the teacher's relation to the content. By critically reflecting on the teaching content, the teacher can bring forth knowledges and values that otherwise would be implicit (companion values). The second relation is between the teacher and the students. By employing a critical gaze on the perspectives and values that students bring into the classroom, the students are supported in putting into question what they have taken for granted. Third is the relation between the students and the content where the teacher can support students in critically examining the content and the perspectives it represents. This is a crucial part of developing solid arguments when discussing sustainability issues in the classroom. The fourth and last critical relation that the approach highlights is the teacher's and students' relation to themselves in terms of critical self-reflection. It is only by critically reflecting over one's own position and responsibility in relation to sustainability issues, that education can open up for new ways of living and thinking which is a necessity if a transformative change toward sustainability is to be possible. Such a self-critical reflection is also paramount considering the global inequalities which are accentuated by environmental and sustainability problems.

With this said, critical pluralistic teaching is not a quick fix that teachers just implement in order to solve environmental or educational problems. As we see it, critical pluralistic teaching is rather about a deeper and more fundamental disposition to education and transformative change. The critical pluralistic approach we outline has a solid theoretical and philosophical foundation which can both inform ESE

teaching practices and be a way to educationally position oneself as a teacher in relation the challenges we face as society.

In the face of current environmental crises, education needs to support students in their encounter with the enormous challenges which puts both their own ways of living and their future society into question. What the critical pluralistic approach highlights is that students do not face these challenges on their own, but can jointly discuss and scrutinize problems and solutions, as well as articulate new ideas and ways forward. Moreover, with a critical pluralistic approach students are supported in developing solid arguments when discussing ES-problems. Solid arguments mean that they are built on scientific facts and values that have been publicly tested. In supporting students to develop solid arguments, the teacher has a crucial role in drawing the line between facts and falsities based on their expertise and subject knowledge. But solid arguments are also built on values about what is desirable. In critical pluralistic teaching these values are publicly tested in open communication with other students and with the teacher. A solid argument must withstand the teacher's critical questioning and gaze, both when it comes to facts and values.

This focus on publicly testing *both* facts and values is what distinguishes the pluralistic approach from the fact-based approach and from the normative approach. While the fact-based approach provides students with a solid foundation of facts that are tested in the classroom, it omits the value aspect of sustainability issues. Values are therefore not put to the test or scrutinized in public deliberation within a fact-based approach, which means that full scope and depth of sustainability issues is never touched upon in a fact-based teaching. Conversely, the normative approach brings in values to the classroom but not as something to openly scrutinize and discuss. The values that enter the ESE classroom in a normative approach are already decided and are therefore closed for further discussion. Hence, a normative approach education becomes a process of transferring values to the new generation, rather than enabling the new generation to form values.

As mentioned above, to enable students to formulate arguments, and enable them to position themselves in relation to the challenges of our time is something that cannot be done in a hurry. These are things that must be developed over time, sometimes during many years of continuous teaching and classroom discussions. This temporal aspect of discussing sustainability issues with others should not be underestimated. By being a place where sustainability issues can be discussed over a long period of time under the guidance of a teacher, who has both deep content knowledge and a didactic sensitivity, makes education a truly unique place for ethical, political and practical discussion of the question: What is to be done?

Lastly, in this chapter we formulate principles for the boundaries of pluralistic discussions in education. In times when the public debate and the media logic tend to open for both falsities, conspiracy theories and sometimes even lets explicit racist and misogynist opinions pass as legitimate standpoints, the classroom, as a unique place for discussions, becomes even more important. It becomes important not only from an educational perspective, but also from a democratic and societal perspective. It is here we find the teacher, a figure who simultaneously cares for the students' growth *and* the world they are in the process of entering (cf. Arendt, 1961). For some students,

the classroom might be the only room where they can develop thoughts and ideas in discussions that are curated by an adult who has their best interests at heart. A critical pluralistic approach is an approach that establishes, cherishes and safeguards that room.

References

- Andersson, K. (2017). Starting the pluralistic tradition of teaching? Effects of education for sustainable development (ESD) on pre-service teachers' views on teaching about sustainable development. *Environmental Education Research*, 23(3), 436–449. <https://doi.org/10.1080/13504622.2016.1174982>
- Arendt, H. (1961). The crisis in education. In *Between past and future: Six exercises in political thought* (pp. 173–196). Viking.
- Biesta, G. (2002). Bildung and modernity: The future of Bildung in a world of difference. *Studies in Philosophy and Education*, 21(4), 343–351. <https://doi.org/10.1023/A:1019874106870>
- Biesta, G. (2016). *The beautiful risk of education*. Routledge.
- Blythe, J., Silver, J., Evans, L., Armitage, D., Bennett, N. J., Moore, M., Morrison, T. H., & Brown, K. (2018). The dark side of transformation: Latent risks in contemporary sustainability discourse. *Antipode*, 50(5), 1206–1223. <https://doi.org/10.1111/anti.12405>
- Boström, M., & Lidskog, R. (2024). *Environmental sociology and social transformation. Key issues*. Routledge.
- Boström, M., Andersson, E., Berg, M., Gustafsson, K., Gustavsson, E., Hysing, E., Lidskog, R., Löfmarck, E., Ojala, M., Olsson, J., Singleton, B. E., Svenberg, S., Uggla, Y., & Öhman, J. (2018). Conditions for transformative learning for sustainable development: A theoretical review and approach. *Sustainability*, 10(12), 4479. <https://doi.org/10.3390/su10124479>
- Dewey, J. (1916). *Democracy and education*. Dover.
- Dewey, J. (1927). *The public and its problems*. Swallow Press, Ohio State University Press.
- Dewey, J. (1938). *Experience and education*. Touchstone.
- Dewey, J. (1939). Creative democracy—The task before us. In J. A. Boydston (Ed.), *John Dewey. The later works, 1925–1953: 1939–1941* (Vol. 14, pp. 224–230). Southern Illinois University Press.
- Good, J. A., & Garrison, J. (2010). Traces of Hegelian Bildung in Dewey's philosophy. In P. Fairfield (Ed.), *John Dewey and continental philosophy* (pp. 44–68). Southern Illinois University Press.
- Jickling, B. (1994). Why I don't want my children to be educated for sustainable development: Sustainable belief. *The Trumpeter*, 11(3). <https://trumpeter.athabasca.ca/index.php/trumpet/article/view/325>
- Klafki, W. (2000). Didaktik analysis as the core preparation of instruction. In I. Westbury, S. Hopmann, & K. Riquarts (Eds.), *Teaching as reflective practice. The German Didaktik tradition* (pp. 139–160). Routledge.
- Lindgren, N., & Öhman, J. (2019). A posthuman approach to human-animal relationships: Advocating critical pluralism. *Environmental Education Research*, 25(8), 1200–1215. <https://doi.org/10.1080/13504622.2018.1450848>
- Linnér, B.-O., & Wibeck, V. (2020). Conceptualising variations in societal transformations towards sustainability. *Environmental Science & Policy*, 106, 221–227. <https://doi.org/10.1016/j.envsci.2020.01.007>
- Mårth, A., & Tryggvason, Á. (2017). Democratic education in the mode of populism. *Studies in Philosophy and Education*, 36(6), 601–613. <https://doi.org/10.1007/s11217-017-9564-5>
- Merriam-Webster. (2025, February 7). *Critique*. <https://www.merriam-webster.com/dictionary/critique>
- Mouffe, C. (2005). *On the political*. Routledge.

- Öhman, J. (2006). Pluralism and criticism in environmental education and education for sustainable development: A practical understanding. *Environmental Education Research*, 12(2), 149–163. <https://doi.org/10.1080/13504620600688856>
- Öhman, J. (2014). Om didaktikens möjligheter—Ett pragmatiskt perspektiv. *Utbildning & Demokrati—tidskrift för didaktik och utbildningspolitik*, 23(3), 33–52. <https://doi.org/10.48059/uod.v23i3.1023>.
- Öhman, J., & Öhman, M. (2013). Participatory approach in practice: An analysis of student discussions about climate change. *Environmental Education Research*, 19(3), 324–341. <https://doi.org/10.1080/13504622.2012.695012>
- Öhman, J., & Östman, L. (2007). Continuity and change in moral meaning-making—A transactional approach. *Journal of Moral Education*, 36(2), 151–168. <https://doi.org/10.1080/03057240701325258>
- Öhman, J., & Östman, L. (2019). Different teaching traditions in environmental and sustainability education. In K. Van Poeck, L. Östman, & J. Öhman (Eds.), *Sustainable development teaching: Ethical and political challenges* (pp. 70–82). Routledge.
- Öhman, J., & Tryggvason, Å. (2023). Manifesto for a critical pluralistic education. *ESERGO Essays*, 2.
- Öhman, J., Öhman, M., & Sandell, K. (2016). Outdoor recreation in exergames: A new step in the detachment from nature? *Journal of Adventure Education and Outdoor Learning*, 16(4), 285–302. <https://doi.org/10.1080/14729679.2016.1147965>
- Öhman, J., Tryggvason, Å., & Sund, L. (2025). *Didaktiska modeller för miljö- och hållbarhetsutbildning*. Studentlitteratur.
- Olsson, D., Gericke, N., & Boeve-de Pauw, J. (2022). The effectiveness of education for sustainable development revisited—A longitudinal study on secondary students' action competence for sustainability. *Environmental Education Research*, 28(3), 405–429. <https://doi.org/10.1080/13504622.2022.2033170>
- Östman, L., Van Poeck, K., & Öhman, J. (2019). A transactional theory on sustainability teaching. Teacher moves. In K. Van Poeck, L. Östman, & J. Öhman (Eds.), *Sustainable development teaching: Ethical and political challenges* (pp. 140–152). Routledge. <https://doi.org/10.4324/9781351124348>
- Roberts, D. A., & Östman, L. (1998). *Problems of meaning in science curriculum*. Teachers College.
- Rudsberg, K., & Öhman, J. (2010). Pluralism in practice—Experiences from Swedish evaluation, school development and research. *Environmental Education Research*, 16(1), 95–111. <https://doi.org/10.1080/13504620903504073>
- Rudsberg, K., & Öhman, J. (2015). The role of knowledge in participatory and pluralistic approaches to ESE. *Environmental Education Research*, 21(7), 955–974. <https://doi.org/10.1080/13504622.2014.971717>
- Rudsberg, K., Öhman, J., & Östman, L. (2013). Analyzing students' learning in classroom discussions about socioscientific issues. *Science Education*, 97(4), 594–620. <https://doi.org/10.1002/sce.21065>
- Skolverket. (2001). Miljöundervisning och utbildning för hållbar utveckling i svensk skola. (00:3041).
- Skolverket. (2022). *Naturkunskap, 1a1 [Natural science, 1a1]*. <https://www.skolverket.se/undervisning/gymnasieskolan/laroplan-program-och-amnen-i-gymnasieskolan/gymnasieprogrammen/amne>
- Sund, L., & Öhman, J. (2014). On the need to repoliticise environmental and sustainability education: Rethinking the postpolitical consensus. *Environmental Education Research*, 20(5), 639–659. <https://doi.org/10.1080/13504622.2013.833585>
- Tryggvason, Å., Sund, L., & Öhman, J. (2022). Schooling and ESE: Revisiting Stevenson's gap from a pragmatist perspective. *Environmental Education Research*, 28(8), 1237–1250. <https://doi.org/10.1080/13504622.2022.2075326>

- Tryggvason, Á., Öhman, J., & Van Poeck, K. (2023). Pluralistic environmental and sustainability education—A scholarly review. *Environmental Education Research*, 29(10), 1460–1485. <https://doi.org/10.1080/13504622.2023.2229076>
- Urberg, L. (2025). Conflicts of interest in environmental and sustainability education. *Scandinavian Journal of Educational Research*, 1–14. <https://doi.org/10.1080/00313831.2025.2471350>
- Urberg, L., & Öhman, J. (2024). Resisting sustainable development: An analysis of young people's online discussions. *Journal of Youth Studies*, 1–17. <https://doi.org/10.1080/13676261.2024.2322607>
- Van Poeck, K., Östman, L., & Öhman, J. (Eds.). (2019). *Sustainable development teaching: Ethical and political challenges* (1st ed.). Routledge. <https://www.taylorfrancis.com/books/9781351124331>
- Wals, A. E. J. (2010). Between knowing what is right and knowing that is it wrong to tell others what is right: On relativism, uncertainty and democracy in environmental and sustainability education. *Environmental Education Research*, 16(1), 143–151. <https://doi.org/10.1080/13504620903504099>

Ásgeir Tryggvason is Associate Professor in Education at Örebro University, Sweden, and is the coordinator for the research environment ESERGO and for the Nordic ESE research network. His research focuses on environmental and sustainability education (ESE), with a particular interest in the political and existential dimension of teaching. He has an empirical interest in the role of passions, identities and conflicts and a theoretical focus on agonism and *Didaktik* theory.

Johan Öhman is a Professor of education at the School of Humanities, Education and Social Sciences, Örebro University, Sweden and is the scientific leader of the research group ESERGO (Environmental and Sustainability Education Research Group Örebro). His area of research focuses on ethical and democratic perspectives in education, often drawing on John Dewey's pragmatic philosophy and concept of transaction.

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