Teaching Medical and Genetic Aspects of the Holocaust and Other Mass Killings During the Nazi Era

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Our oral presentation at the conference workshop will be a short dramatisation. This is a teaching method that can be very problematic in Holocaust education, and that is why we would like to discuss the risks and possibilities of this method. However, we are convinced the pedagogical practice must be built on a solid theoretical ground. That is why we also present this paper. We have written the paper in order to give an in-depth view of our pedagogical considerations. The aim of this paper is to give an extensive theoretical background to our pedagogical approach.

Introduction

Pseudo-sciences like racial biology and social Darwinism can serve as one of many plausible explanations for how it was possible to carry out the Holocaust and other mass killings during the Nazi era. The European Jewish population suffered irreversible and unique losses. In addition, there were also non-Jewish victims. The Nazi-Euthanasia program can serve as one example.

The cruel medical experiments performed at Ravensbrück, Dachau, Buchenwald, Birkenau and other camps were also results of social Darwinism, i.e., misunderstood Darwinism in combination with racial biology. These pseudo-sciences were not limited to the Nazi regime and did not automatically lead to genocide. Instead, one might emphasise that these thoughts influenced much larger areas. For example, the Institute of Racial Biology was established in Sweden 1921.

The history raises questions important to today’s civic life and democracy. What can the past teach us? The victims are uncountable, but without perpetrators there would not be any victims. How do we avoid being perpetrators? How do we avoid being instinctive and unreflecting bystanders? In this paper we focus on the roles of perpetrators and bystanders, not the victims. This may be explained by two phenomena: guilt and responsibility. Or as the German philosopher and sociologist Theodor W. Adorno stated in his 1966 speech (Adorno, 1997):

The roots are to be sought in the perpetrators, not in the victims [...] Those who were murdered are not guilty, not even in the sophistic and caricatured sense in which many people would still like to construe it today. Only those people who senselessly gave vent to their hatred and aggressiveness upon them are guilty.

Adorno’s talk on Hessischer Rundfunk is reported to have had a profound effect on German educators at that time. The title was Erziehung nach Auschwitz (Education after Auschwitz). By that, Adorno didn’t explicitly mean education about the actual camp. Instead he advocated the importance of trying to investigate and explain the underlying phenomena. How was Auschwitz possible? Even today, educators often quote the opening sentences of Adorno’s speech:

The very first demand on education is that there not to be another Auschwitz. It takes so much precedence over every other demand that I do not think that I either have to or should give reasons for it.

To us, this is a question about responsibility. As second-generation bystanders we don’t bear any guilt. But as humans and as educators we do have a crucial responsibility to try to shed light on the phenomena and the human behaviours that brought the Holocaust and other atrocities against humanity into reality.

Even though the impact of the pseudo-sciences mentioned above might have decreased, we are still worried, especially concerning the medical field. What impact might genetic techniques of the future bring into our democratic society? Who should have the authority to decide what clinical applications are acceptable? The main question remains to be answered: Which ideology influences our considerations?

Horkheimer and Adorno (1973) discuss the impact of technology on the modern society in their classic work Dialektik der Aufklärung, (Dialectics of Enlightenment) originally published 1944. The book is a very strong critique of civilisation in which the authors endeavour to explain why modernity, including the use of advanced techniques, medicine and natural sciences, sank into a new barbarism instead of fulfilling the promises of the Enlightenment. Adorno stressed the same theme in the 1966 talk (Adorno, 1997):

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People are inclined to consider technology to be the matter itself, the goal in itself, or a force with its own being and in the process to forget that it is the extended arm of human beings.

Horkheimer and Adorno explain how the Enlightenment’s orientation towards rational calculability, modernity and the use of advanced technology—aiming toward man’s domination of nature—will lead to severe reversions. The ambitions that were supposed to lead to prosperity will instead lead to the opposite, and in this way, the authors emphasise the dialectic in the concept of Enlightenment. The *Dialektik der Aufklärung* represents a very pessimistic view of humanity and our reckless use of modern techniques.

The *Nazi War on Cancer* (Proctor, 2000) touches upon the same theme, i.e. Enlightenment, modernity and humanity as being doomed to destruction. The Nazis were responsible for genocide, for mass killings and for countless medical horrors, but in this book the author shows another side of Nazi medicine and science. The text focuses on the discovery that Nazi scientists were promoting health reforms that we today regard as progressive and socially responsible. The Nazi doctors fought their war against cancer on many fronts, battling workplace and environmental hazards. Carcinogenic pesticides and food dyes were banned and the use of asbestos was restricted. They were among the first to link smoking to lung cancer. Nazi officials were especially passionate about the hazards of tobacco. On the other hand, the Nazi health propaganda only involved the “Aryan” population and to some extent the “Aryan” animals. The usual Nazi targets (the Jews, people with disabilities, and others) were certainly not included in the war on cancer or any other type of health promoting activity.

Proctor explores the troubling questions that such findings raise: Can good science come from an evil regime? Were the Nazis more morally complex than we thought? What might this reveal about health activism in our own society? Or in his own words:

*Do we look at history differently when we learn that [...] Nazi health officials worried about asbestos-induced lung cancer? I think we do. We learn that Nazism was a more subtle phenomenon than we commonly imagine, more seductive, more plausible.*

Proctor does not apologise for the atrocities against humanity executed by the Nazis and their collaborators. Instead he helps us to focus on the complex moral discussions concerning the application of medicine and science in past, present and future society. Can an immoral regime promote and produce morally responsible science? Can a morally responsible regime promote and produce immoral science?

Our aim at the conference is to discuss how science can be used in both democratic and anti-democratic societies. We will especially focus on the ideology behind policies that enables unethical use of genetic techniques and modern medicine. We will describe several educational projects: from upper secondary school to teacher training programmes and the further training of experienced professionals at academic levels. In our work as educators, we integrate different aspects of the ideology behind Nazi-medicine and related fields in interdisciplinary syllabi. Medicine is the backbone, but it is discussed in a multidisciplinary context of history, philosophy, psychology and other social sciences.

**Science, Ideology and Pseudo-science**

We suggest that different ideologies affect the outcome of how we use science and medicine in society. We also suggest that some of these ideologies seek legitimacy in scientific theories. In order to investigate the accuracy of our assumptions we would like to clarify how we understand the key concepts of Darwinism, social Darwinism, race and racism.

**Darwinism**

Modern Darwinism, developed by Charles Darwin and others, describes a theory of biological evolution that states that all species arise and develop through natural selection by which small, inherited genetic variations increase the individual’s ability to survive and reproduce. Darwinism includes the theory of evolution, the scientific theory describing the origin of life on earth and how populations and species have since evolved. Modern Darwinian theory incorporates the principles of genetics while retaining the emphasis on natural selection as a main driving force of evolution. The theory of evolution is a crucial part of natural science, which does not exclude the possibility of alternative explanations as to how it all started. However, in this paper religious creational theories will not be discussed.

Natural selection is the process by which evolutionary changes are chiefly driven. Environmental factors such as climate changes, e.g. alterations in temperature, pH-levels or the amount of oxygen, carbon dioxide or sulphur in the air, are fundamental to the process. These changes in environmental factors can occur after major natural catastrophes like enormous earthquakes or the strike of a large meteorite. The fittest organisms will survive, which means that the organisms that can adapt to the new environmental conditions will be able to reproduce.

Who will be the fittest to survive after major climate changes? According to Darwinian theory, the individuals with the most favourable genes will survive. In any

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1 We also know both Hitler and Goering were what today might be called animal rights activists. Hitler disliked experiments on animals, which led Goering to ban vivisection in 1933.

2 In this paper we consistently use the word “race” as synonymous with “breed” and to us both concepts are neutral, neither positive nor negative.

3 Genes are like recipes in a cookery book, the proteins synthesised in the cell are equivalent to the dishes. Each living cell carries a full complement of genes typical of the species. Genes have only one function in life: to encode and direct the synthesis of proteins in a cell. Proteins have different uses within the organism, e.g. regulating biochemical processes, giving structure to the body, etc.
population there will always be diversity in genotypes. Those individuals with genes that encode for certain proteins will be able to adapt to the new environmental conditions. This means that over a long period of time, advantageous genes will accumulate among individuals in a population.

Social Darwinism

Social Darwinism can be considered as a pseudo-scientific application of Darwinism, but in fact, social Darwinism has nothing to do with science or the theory named after Charles Darwin. The only real connection between Darwinism and social Darwinism is the name. The real sources of social Darwinism are Herbert Spencer (A System of Synthetic Philosophy, volume 1-10, 1862-1893) and the tradition going back to the English philosopher Thomas Hobbes, who stridently advocated the need for autocracy.

Social Darwinism is the study of human society. In particular, it is a theory stating that individuals or groups achieve benefits over others as the result of fabricated—or existing—genetic, medical or biological differences. These differences are thought to give certain individuals or groups superiority. Social Darwinists stress that social policy should allow the weak and unfit to fail and die, and that this is not only a good policy but ethically right. In social Darwinism the selection is not natural, i.e. it is not driven by natural requirements in the environment. Additionally, it is not the individuals with the most favourable genes who will survive and reproduce. In social Darwinism some humans are excluded as a result of social policies that are propelled by anti-democratic principles. It is not the fittest that will survive (if one accepts the Darwinian version of the concept). Instead it is the strongest, the most powerful or the most politically correct humans who will survive.

In the national socialistic (NS) version of social Darwinism, natural selection was, and is, replaced by man-made selections. The examples are innumerable and terribly brutal; day-by-day thousands of humans were killed after being selected by the NS-doctors on the platform in Birkenau, and NS-officials sent them to killing centres in the euthanasia program. The examples are endless at that time and these selections did not have anything to do with large-scale natural changes that affected the natural environment. Social Darwinism is not about science: it is politics, and certainly not a democratic policy.

However, Hitler tried to legitimise the NS-policy by referring to the theory of evolution through natural selection. This is obvious after a brief reading of the chapter on human races in Mein Kampf. The text makes it obvious that Hitler understood nothing about the fundamentals of modern Darwinism. However, this did not restrain the NS propaganda apparatus from using the theory in various films and pamphlets.

Races

What is the modern concept of race? This is a question of crucial importance, and as biologists we suggest the popular definition below. Three conditions must be fulfilled in order to determine whether races exist within a species. If even one of the conditions is not fulfilled, one cannot declare that different races, in a biological sense, exist. The conditions are:

1. There must be pronounced and specific differences in physical appearance between different sub-populations in a species.
2. There must be pronounced and specific psychological or mental differences between the same sub-populations as referred to in (1).
3. There must be pronounced and specific genetic differences between the same sub-populations as referred to in (1) and (2).

Let us investigate whether humanity includes different races. Are there any pronounced and specific differences in physical appearance between different groups of humans? Yes, if one, for example, accepts different colours of the iris or the skin, or perhaps body length, as being “pronounced and specific differences”. On the other hand, it would then also be logical to assess the different coat colours of Labrador retrievers as being “pronounced and specific differences”, i.e., indications there might be several “races” of Labradors. Such a thought would most likely diverge heavily from the accepted apprehensions among dog breeders or domestic animal geneticists. To determine whether or not the first condition is fulfilled concerning humans, we would state that it depends on what we consider to be “pronounced and specific differences in physical appearance”.

What about the second condition? Are there any “pronounced and specific psychological or mental differences” between different groups of humans? As biologists, we would carefully avoid any quackery, and psychology is not our arena. But to the best of our knowledge, there are no general “pronounced and specific psychological or mental differences” between people with tall and short body length or between blue-eyed and brown-eyed humans.

It is our impression that the general public sees the essence of the concept of human races as being “pronounced and specific genetic differences” between different groups of people. Let us investigate the relevance of the third condition. In recent years, many scientific articles have been published on the matter. Some of the key findings are presented below.

Alan R. Templeton, professor of biology at Washington
University in St Louis, has analysed DNA from various human populations. His results show that while genetic variation is abundant in humans, most of the variation occurs within individuals (Templeton, 1998). The between-population variations are very slight and do not support the human race theory. Templeton's results and conclusions seem to be supported by other research groups (see Kaessmann, Heissig, von Haeseler and Paabo, 1999).

From a genetic point of view we are all Africans, either residing in Africa or in recent exile. Large-scale comparisons of human DNA from many individuals are now possible with modern genetic techniques. The general picture from such studies already completed in this area is that the gene pool in Africa contains more variation than elsewhere. Genetic variations found outside of Africa represent only a subset of those found within the African continent (Paabo, 2001). These results are also confirmed by Watkins et al (2003). Jorde, Bamshad and Rogers write in their review (1998):

Molecular genetic-data have greatly improved our ability to test hypotheses about human evolution. During the past decade, a large amount of nuclear and mitochondrial data have been collected from diverse human populations. Taken together, these data indicate that modern humans are a relatively young species. African populations show the largest amount of genetic diversity, and they are the most genetically divergent population. Thus, when it comes to human genes, it is not uncommon that two persons who look superficially alike are actually less genetically related to each other than they are to persons from other parts of the world that may look very different. In conclusion, from a biological point of view there seems to be strong scientific support for the statement that human races do not exist. Today race is a political or cultural concept in society, not a biological concept.

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Racism and Racial Biology

Much has been said and written on the concept of racism. In recent years the Stanford professor George M. Fredrickson (2002) has written an interesting book on the matter, in which he raises the question: What do apartheid South Africa, Nazi Germany, and the American South under Jim Crow have in common? Fredrickson's work is a comparison of different racial systems and their underlying phenomena, i.e. modern racism as anti-Semitism or white supremacy. Fredrickson defines racism as a system that establishes a permanent racial hierarchy reflecting decrees of God or the laws of nature. Humans in a specified group are considered to have specified inborn traits, implicitly inherited in the genes, which means one has to exhibit the traits forever. Because of this, stigmatised groups can never change their status or rise to a position of power within the dominant group.

In the end of nineteenth-century Europe the support for racial biology seems to have grown stronger. Charles Darwin's cousin, Francis Galton, was among its upholders. Arthur de Gobineau was another. He wrote his major work (Gobineau, 1999) on the subject as a result of his lengthy travels throughout the world. Gobineau took his observations and attempted to build a theory that would describe the divergences he observed amongst different human groups. In Gobineau's opinion, all human problems can be found in “the blood”, and these problems can be passed on to the next generation. In other words, problems among people are inborn and inherited in the genes. Gobineau also emphasised white supremacy. The reason he provided for his statement was the “unrivalled beauty” of people with white skin.

Apparently the eugenic ideas did attract large groups and different socio-economical strata in the European society. Racial biology had an enormous impact on the politics in the beginning of twentieth-century. Houston Stewart Chamberlain was an extreme anti-Semtitist and pronounced

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6 Templeton used modern molecular techniques and analysed millions of genetic sequences found in three human populations: Europeans, sub-Saharan Africans and Melanesians. Templeton analysed genetic data from mitochondrial DNA, a form inherited only from the maternal side; Y chromosome DNA, paternally inherited DNA; and nuclear DNA, inherited from both sexes. His results show that 85 percent of the genetic variation in human DNA is due to individual variation. Templeton has traced 15 percent of this variation to what could be interpreted as “racial” differences. However, 15 percent is well below the threshold that is used to recognise race in other species. In many other large mammalian species, the rates of differentiation must be two or three times that of humans before the lineages are even recognized as races. Templeton’s results show that humans are one of the most genetically homogenous species we know of. His results show that there is more genetic similarity between Europeans and Sub-Saharan Africans and between Europeans and Melanesians, than there is between Africans and Melanesians. Even though sub-Saharan Africans and Melanesians share the characteristics of dark skin, hair texture and cranial-facial features, which some people might consider to be “pronounced and specific differences in appearance” in comparison to blonde, blue-eyed and white-skinned Europeans. According to Templeton, this example shows that “racial traits” are grossly incompatible with overall genetic differences between human populations.

7 In dissecting the concept of racism Fredrickson goes back to medieval Europe and its religious origins in fifteenth-century Spain, traces the spread of racial thinking in the beginnings of the African slave trade and wake of European imperialism. He also examines the impact of the Enlightenment and nineteenth-century romantic nationalism on racial thinking, concluding with a description of how racial thinking brutalised the policies in twentieth-century America, Nazi-occupied Europe, and South Africa. This survey also describes how racism, driven by religion, became “scientific” under the influence of misunderstood Darwinism combined with racial biology. Thus, Fredrickson explains how contemporary racism can be understood as an offspring of the Enlightenment and modernity.
professor in genetics, Bengt Olle Bengtsson (1999): Those questions we would like to quote the Swedish return to the former sterilisation policy? In order to answer us future prospects to improve humanity. Maybe we should when we have access to modern techniques that might give us future prospects to improve humanity. Maybe we should return to the former sterilisation policy? In order to answer those questions we would like to quote the Swedish professor in genetics, Bengt Olle Bengtsson (1999):

The key to answering these questions is easily described: the vast majority of damaged genes are borne by people like the one writing this sentence (me) and the one reading it (you). That is to say, people of relatively normal physical and mental health. This is because most damaged genes exert their harmful effect only when combined with other damaged genes (the harmful characteristic is recessive). Simply put, one therefore cannot talk about people having good or bad genes. Since everyone is a bearer of damaged genes, the difference between healthy people and those with hereditary diseases is that the healthy ones were lucky in getting a good combination of genes when the sperm and egg fused together. The others were merely unlucky. In light of this state of affairs, making efforts to sterilise the relatively few who have hereditary diseases, or their relatives, has such a small effect on the number of future children with such diseases that no decrease will be noticeable within the foreseeable future (i.e. hundreds of generations). Thus, all of the sterilisation that was performed in Sweden in the name of a healthy future was not only often inhumane in its execution—it was also completely ineffective.

Pedagogical approach

Two schools of thought form the basis of our pedagogical approach: Constructivism in general and Critical Theory in particular. In the constructivist view of learning and knowledge, individuals actively construct their own new knowledge against the backdrop of the challenges offered to them by their education. This means that knowledge cannot merely be transmitted from the teacher to the student because the learning process is dependent upon characteristics residing within the individual learner.

The constructivist view of knowledge is based on biologist and educator Jean Piaget’s thoughts, which can be studied further in *The Child’s Conception of the World* (Piaget, 1983). According to Piaget, learning is a highly individual process. Our pedagogical approach has also been influenced by Lev Vygotsky’s socio-cultural perspective (1986), which is based on the idea that the individual’s learning is facilitated when learning and teaching take place within a social context in which people can exchange their ideas and opinions.

But above all, we have adopted critical theory’s view of knowledge as a form of emancipation. Thus, we believe that individuals are in part the product of their history and current environment, and in part play independent role in bringing about societal change. This means that people, through self-reflection, problematising and contextualising, can emancipate themselves and become aware of the various functional and ideological structures found in the whole of society or its parts. Since Critical Theory has such fundamental importance for our pedagogical endeavors, as well as having a highly abstract meta-theoretical level, we feel obliged to clarify our own interpretation of it.

The Critical School’s View of Knowledge

Critical Theory emanates from the Frankfurt School and the independent research institute that was established there in 1923. The theory is characterised by its combination of interpretation and a pronounced interest in critically evaluating the social environment. This naturally includes the educational sector, in which we choose to include even the research and scientific community. Today, Critical Theory encompasses many diverse fields of knowledge. The theory itself is markedly abstract and meta-theoretical, and most often does not provide any clear methodological guidelines to be applied. In other words, this tradition is characteristically relativistic. Critical Theory encompasses much, but the tradition always entails an anti-totalitarian involvement in questions of democracy, a critical approach to social strata and an interest in emancipatory knowledge in which individuals actively participate in their own emancipation.

Since Critical Theory is characterized by abstract meta-theoretical discourse, it can at first glance be difficult to see its practical applications for the everyday world of the classroom. However, we see a basic process (see figure 1) by

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8 Chamberlain went very far in his ambitions. He even claimed that Jesus was of “Aryan” heritage (Fredrickson, 2002). Chamberlains fixed ideas, fantasies and mania involving Germania, Teutonic mythology, the Teutonic people and all things Germanic appealed to Hitler. Chamberlain’s major work is *Die Grundlagen des XIX Jahrhunderts*, published 1899 in Germany. The book was translated into several European languages, e.g. *Foundations of the Nineteenth Century* (Chamberlain, 1968), and was reprinted in Germany in more than 20 editions. The combat between Germans and Jews is the leading theme in *Die Grundlagen*.

9 The first generation was represented by the head of the institution, Max Horkheimer. Many other now well known figures also had ties to the institution, including Theodor W. Adorno, Erich Fromm and Herbert Marcuse. When the Nazis took control, the researchers were forced to flee. Much of their work during the war era was thus conducted in exile. After the war, the institute was able to open its own premises again, this time in Berlin, where Adorno was head during the 1960s. The second-generation researchers associated with this tradition include Jürgen Habermas, who had previously been Adorno’s assistant.
which learners, based on their (1) pre-conceived notions about a certain phenomenon, and through (2) problematising, (3) contextualisation—which includes a shift in context—and (4) reflection, can acquire (5) new knowledge, and through this learning process are able to (6) emancipate themselves from their earlier notions about the nature of the phenomenon in question. In this paper we will attempt to provide some concrete examples of how this basic process can be applied in pedagogical contexts.

According to our understanding of Critical Theory and the basic process outlined above, students should be encouraged to be responsible individuals, to expand their awareness, and thereby achieve their own emancipation. Thus, we appreciate the importance of individual liberty, which even means encouraging individuals to have courage in their beliefs and take a clear stand in controversial issues. This means that teaching can by all means be learner-centered and based on the learners’ questions and interests. However, it is pedagogically beneficial if an individual’s emancipation takes place in democratic deliberation with others. Working in groups, in which different ideas can be mulled over, is therefore often of great benefit to the individual learning process.

There are reasons for emphasizing two factors that are necessary for this learning process to realistically be able to function as emancipation for individuals: multi-disciplinary factual knowledge and an understanding of the processes involved in democratic deliberation. It is extremely important that factual knowledge be added to the individual’s preconceptions at an early stage of the learning process, and that this acquisition of knowledge take place continually and in conjunction with problematising, contextualisation, and reflection on the continuing process.

Multidisciplinary Context as a Result of Three Dimensions

In order to achieve a comprehensive view of a phenomenon or thematic area, it is necessary that specific aspects be highlighted, interpreted and evaluated so that these may later be combined into a new entirety. In light of our approach to knowledge, teaching about applied genetics or sustainable development, for example, should never be strictly limited to a single subject. What is required here is a multi-disciplinary approach, in which several disciplines ideas can be expressed and woven together to form new comprehensive entities and new understandings. Therefore, multi-disciplinary treatments of the phenomenon in question are of fundamental importance to the emancipatory process.

Because of this we believe that knowledge in biology and medicine is important for an integrated understanding of the Holocaust and other systematic, industrial-scale murder during the Nazi era. The converse also applies: we believe that the Holocaust and other systematic, industrial-scale murder during the Nazi era need to be an important part of the teaching of biology and medicine. In our opinion, there is a clear dualistic relationship here. However, we want to particularly emphasise that basic knowledge about the course of historical events is always fundamental.

The didactics of a subject and the subject as a science differ in many ways. We have found it fruitful to work with three different dimensions together, creating a triangular pedagogical space in the middle (see figure 2). One of the corners is made up of the scientific-cognitive dimension, in which the learner can acquire fact-based knowledge. This
dimension has a clear basis in the scientific subject in question. Another corner contains the social-contextual dimension, which includes political, historical and other aspects of the object of study. The third corner encompasses the emotional-personal dimension. We wish to emphasise the importance of this dimension, which allows teachers to create space for learners to be emotionally involved in the process, that is, to create space for taking a personal stance.

These three dimensions interact with each other during the learning process. In the center of this interaction, pedagogical space emerges, which hopefully allows individuals to achieve an increased degree of emancipation.

Democratic deliberation
Within the schools, we are supposed to practice democracy on several different levels. This does not only apply to our way of working, but also to our attitudes. The latter involves the norms and values that we are to embrace and express through our actions. There are many ways to work with democracy, but we seem to have understood that democracy is never finished. This means that we must constantly strive to strengthen and monitor democracy, while at the same time be on the lookout for all anti-democratic expressions. We think that the specific procedure of democratic deliberation can be a valuable instrument in these efforts. Our view of democratic deliberation is greatly influenced by Jürgen Habermas (1984, 1987) and his theory of communication.

We believe that democratic dialogue should take a deliberative approach in which the participants individually—but in a dialogue with others—are given the opportunity to formulate new opinions. This involves a dialogue characterized by (1) equality, (2) comprehensibility and (3) honest intentions. This has been admirably explained by Christer Fritzell, professor of education at Vaxjo University (2003):

In discourse of this nature, it is vital that the participants maintain mutual respect and remain relatively impartial, and that there is equality with respect to the right to speak and obligation to listen. Each person must have the ongoing right, implicitly or explicitly, to voice their yes or no, and be prepared to give justification for it. All parties in the dialogue need to treat others as if they have something valuable to contribute, and that their opinions are important. Part of this means not rejecting any arguments that you (still) haven’t understood. By taking each other's perspectives and including as many as possible in the communicative frame of reference, it is thought that a form of impartiality can be reached.

Dialogue provides good opportunities to compare one's own argument with those of others. The group's communication and collaborative dissection of the argument is important. The group's members do not always have to agree. Different opinions are allowed to co-exist within the group, and thus consensus is not the main point. However, it is vital that each person participating in the discussion understand that the members need to reach some form of agreement in the end. A democratic society means both respecting others and being respected yourself. This should be remembered while at the same time the group allows the strongest arguments—which do not necessarily belong to the strongest individuals—to play a larger part in the final agreement. The entire process must be characterised by democratic values such as the inviolability of human life, personal freedom and integrity, the equal value of all people and solidarity with the weak and vulnerable. Fritzén and Gustafsson (2004) clarify this in the following way:

A deliberative perspective means having students delve deeply into certain areas relevant for the curricular aims, and having them test how well their own arguments hold up when seen from different perspectives. But here communication even takes on a kind of universal respect, or in Hannah Arendt's words, ‘expanded thinking.’ In discourse striving for ‘expanded thinking,’ consensus or unanimous agreement is not the most important thing.

Applied Teaching Methods
If one, as we do, sees the learning process as a path towards personal emancipation from one’s own preconceived beliefs, one needs to adjust one's teaching accordingly. We would like to present some teaching methods that we have found to work well in this context. For example, we work with field trips, genuine evidence and artefacts; all of this has to do with working with authenticity. Additionally, we have had successful experiences with incorporating dramatisations as well as basing our teaching on the learners’ own questions (question-based learning). But at the same time we need to emphasise that the ultimate method does not exist. Therefore it is important that educators have access to an arsenal of various methods as well as consistently basing their actions on an appropriate pedagogical theory. In our case this means attempting to teach in accordance with the theory drawn from the Frankfurt School and Constructivism.

Authenticity
In many of the examples of practice below, the learner has worked with methods that have their roots in the concept of authenticity. By authentic we mean something that is genuine, reliable, credible, certain and natural. By authentic objects we mean artefacts that are as untouched as possible. It follows from this that restored or renovated artefacts are less authentic, since they have been changed in order to reflect a particular phenomenon during a particular period. The more an artefact has been restored, the less authentic it is. This means that replicas are always completely inauthentic.

Authenticity is, however, simply not a given characteristic of an artefact, since the experience of authenticity is based on the observer’s preconceptions. In order for learners to engage in authentic experiences, they need to have previously learned about the related facts. This is principally a cognitive activity. Here educators need to remember that knowledge about an artefact needs to encompass a clear description of the context within which the artefact was used. If one does not do this, one risks having learners, for example, on their field trip to the Bernberg T4 killing centre, leaving with the impression that the gas chambers are merely old-fashioned showers.
These learners will certainly still have had an authentic experience, but as it is based on insufficient background knowledge, they risk being lured into historical revisionism.

A field trip to a former concentration camp such as Sachsenhausen or Buchenwald, where a learner can see the dissection tables and other instruments from the Nazi doctors’ operations, can provide an authentic experience that is deeply personal and moving on an emotional level. But the experience is dependent upon the preconceptions of the observer. In other words, it is reasonable to assume that an experienced specialist in forensic medicine will understand the artefacts differently from someone who is studying to become a recreation instructor. On the other hand, this does not exclude the possibility that both individuals will have similar authentic experiences. Our point here is that though the meaning of an artefact depends on the observer’s preconceptions, even observers who lack specialist (professional) knowledge can share some of the specialist’s experience when it comes to aspects that are related to basic norms and values. It is therefore extremely important to clarify these common norms and values before the field trip takes place.

As educators we must remember that authentic experiences can cause such profound emotional distress that the learner becomes more-or-less blocked in his or her continued learning process. The end or final stages of the learning process should therefore not coincide with a field trip of this sort. Instead, it is vital that students enter an analytic phase, which can give the learners the opportunity to distance themselves from the impact of the field trip and create new meaning based on their experiences.

Authentic questions can be used to stimulate and initiate a reflective phase. The purpose is to give learners the opportunity to think and reflect independently. An individual’s initial answer can thereafter be cultivated and developed through discussions with others. An authentic question has no given answer, but can instead be answered based on the individual’s authentic experience. An example of an authentic question is the following: What does the survivor want to say? This question probably has thousands of answers, all depending upon the learner’s own experience. Another question can also be partially authentic: What, in your opinion, were the underlying reasons for using hydrocyanide instead of carbon monoxide in the gas chambers in Birkenau? Of course, questions can also have given answers: How are the organs of the body affected by hydrocyanide? Questions having a given answer key can of course be used, but these should not dominate the process because they do not encourage reflection to a sufficient degree.

When the learner has internalised the method of reflection, it is appropriate to introduce a greater degree of problematising and context shifting. The idea behind this is to encourage students to gain insight in the underlying factors that led to—and possibly could still lead to—the phenomenon under study. This entails using interpretation to see patterns and probable causal relationships. This work can be done, for example, by shifting to modern contexts. Once again, there are solid reasons to emphasise the importance of fact-based knowledge. It is vitally important to avoid having the learner’s conclusions run rampant into far-reaching and extreme notions that are not based on facts, for example, if the learner sees the Holocaust reflected in the current security situation in the Middle East.

The idea is that, through knowledge of the facts, authentic experiences, authentic questions and democratic deliberation, learners are given the opportunity to start with their own individual preconceptions, and through reflection, problematising and contextualising, they are able to gain new knowledge. This knowledge can then contribute to personal emancipation so that each individual, in concert with others, is able to see his or her own reality in a new light.

**Dramatisation**

In one of our practical teaching examples below, we work with a combination of dramatisation and question-based learning. We use dramatisation in order to achieve a fast but effective transition from the invented dramatised situation to the eugenic thinking of the past. Our goal is to give the students insight in what the task will be covering. In our example, the teacher acts out a fictitious person’s role in a particular context and it is obvious that anyone the dramatisation is fictitious or a caricature of an extreme reality. We do not use dramatisation as simulation and we do not use drama as a method to imitate the horrors from the past. This is of the utmost importance and we are in total agreement with Totten’s position (2002):

> Whether teachers like to admit it or not, by using simulations to try to provide students with a sense of what the victims of the Nazis were objected to, they are minimizing, simplifying, distorting, and possibly even denying the horror of the Holocaust. These are strong words and accusations, but they are carefully chosen. By leaving students with even a minimal notion that they possess a real sense as to what the victims went through, teachers may be inadvertently playing into the hands of Holocaust deniers—people who absurdly and falsely assert that “things were not as bad as the Jews and other victims purport them to have been”.

Provided that educators understand the quote above, and can avoid the hazards, we consider dramatisation to be a useful pedagogic tool. In our example below the students are also involved in the drama to a certain extent. One can also choose to have the students be more active in the dramatisation, using role-plays, for example. In role-plays, the learners are each assigned different roles, which they (after having time to prepare) are given the opportunity to perform in interaction with other students, who have been given other roles and other preparation material.

No matter how one chooses to organise the dramatisation, it should be based on the preconceptions of the learners, and followed by reflection, problematising and contextualising to help them gain new knowledge that can contribute to their individual emancipation. However, in order for this to function as a learning process, one needs to take into account the three dimensions we mentioned earlier (see figure 2).
Question-based learning
In traditional teaching, the teacher usually asks the questions and the students are expected to provide the answers. This way of working is often based on the implicit or explicit assumption that there are correct and incorrect answers to the questions. We will by no means reject this approach—it can be an effective way to teach, for example, fact-based knowledge—but we do wish to point out that it is possible to approach teaching in the opposite way by having the students themselves formulate the questions.

The learners can then research their own answers, or as in our example below, the teacher can provide detailed explanations as an answer to the question. This of course makes great demands on the teacher’s own expertise in the subject when it comes to being both widely read and having deep specialist knowledge, as well as having the ability to deftly link to the social-contextual dimension. In our example we use question-based learning as an instrument for quickly learning fact-based knowledge.

We have found that the greatest advantage of working with question-based learning is that one automatically starts with the learners’ preconceptions. If students are given the opportunity to formulate their questions in groups, one then creates a platform for problematising and reflection. At the same time, it is hoped that this will even lay the foundation for further contextualising and democratic deliberation. Our experience has shown that question-based learning can even contribute to students’ increased interest in further study, as well as leading to a more positive attitude towards the object of study.

Teaching the Holocaust from a Medical and Genetic Perspective
Our main educational goal is to emphasise how anti-democratic ideologies and behaviours could affect both our present situation and future society, and to encourage students to achieve an increased degree of emancipation. In this perspective, knowledge of the past is crucial. This is done in a multidisciplinary context, involving several subjects. We hope that this approach will lead participants to understand why it is important to always defend democratic values and to take an active part in civic life; i.e. we must always confront xenophobia and intolerance in order to build a sustainable democratic society. How do we instil in our students the moral strength to react as good democratic citizens when they are faced with difficult situations? Is it possible to teach people not to become passive bystanders?

Below we describe four educational projects concerning learners on different levels and different contexts. For information about the Swedish educational system and curricula—see appendix.

Upper Secondary School: Science Studies A
The educational example concerning the core subject Science Studies A took place under special circumstances at Tornstromska gymnasiet (upper secondary school) in Karlskrona. As we believe the local context may have had an immense effect on the pedagogical conditions, we would like to begin with a description of the local political situation and other factors that might be important. This information is also relevant to the section we have titled Further Education: Experienced Teachers.

Karlskrona and Tornstromska gymnasiet
Karlskrona is a town on the coast of Sweden. Karlskrona, with about 60,000 inhabitants, is the regional centre of the county of Blekinge. The town has been on UNESCO’s World Heritage list since 1998 and is well known for its naval history. The fortifications have remained virtually untouched since the beginning of the eighteenth century. The county of Blekinge is nicknamed “The Garden of Sweden”, which indicates this part of Sweden has a milder climate. Karlskrona is situated in the very southeast corner of Sweden. This means it is close to the continent, the Baltic States and the Russian enclave of Kaliningrad. Ferries are frequently crossing the Baltic Sea.

I spite of this idyllic description, there are darker aspects of Karlskrona11. Historically, and even today, some of the inhabitants nurse National Socialist ideas. Today that means the political party National Socialist Front (NSF) holds a group in Karlskrona, and some of the NSF-leaders are living, or have lived, in the area. Some of them attended the upper secondary school Tornstromska (see below) a few years ago. In recent years, the Swedish Democrats (SD) have taken foothold within the political arena. The party is not explicitly National Socialist, but some of the SD supporters embrace xenophobic ideas or racist views.

Karlskrona and Gavle are the only Swedish towns, with the exception of the larger cities Stockholm, Gothenburg and Malmo, that are mentioned in the unpublished European Monitoring Centre on Racism and Xenophobia (EUMC) report Manifestations of anti-Semitism in the European Union (2003). The investigators have used various sources in order to describe if and how anti-Semitic views are expressed:

11 According to statistics from The Election Authority in Sweden, SD gained 2,155 votes and NSF 208 votes in Blekinge during the latest local elections in 2002. These figures may be compared to the neighbouring county, Kronoberg, where 61 individuals voted for SD and significantly fewer voted for NSF. In the municipality of Karlskrona, 1,336 inhabitants voted for SD. Thereby SD got three seats in the municipal council. Prior to the national, regional and local elections in 2002, the daily newspaper Aftonbladet, in collaboration with Swedish National Board for Youth Affairs and National Agency for Education, arranged for upper secondary students to have the opportunity to participate in an poll. The newspaper presented the results school-by-school on the Aftonbladet web site. At Tornstromska 29 percent of the students voted, and SD gained 13 percent of the votes. This was the highest percentage of SD-votes among the participating schools in Blekinge. None voted for NSF. Vaxjo is the regional centre in the neighbouring county, Kronoberg. Kungsmadskolan in Vaxjo could be considered an equivalent school. At Kungsmadskolan 22 percent of the students participated in the poll and SD gained just over 7 percent of the votes. None voted for NSF.
The local daily [Sydostran] reported (6 June 2002) that the library of the town Karlskrona had found a great amount of anti-Semitic propaganda slipped into shelves, books and papers over the last year. The library has now decided to forbid people with openly racist views to visit the premises. On 14 June several Swedish papers reported that four leading Nazis, two of them living in Karlskrona, have been sentenced to six months prison for re-publishing a 1930s anti-Semitic book titled ‘The Jewish Question’.

In the EUMC report they have also been investigating anti-Semitic expressions on the Internet: Karlskrona, a small town in the southeast of Sweden, is the stronghold of the largest and most active Nazi group in Sweden, the NSF, Nationalsocialistisk Front (National Socialist Front). The group is known for its high anti-Semitic profile, also reflected on its homepages, which are directly linked to the sites of the right extremist and revisionist Gary Lauck from Lincoln/Nebraska.

Tornstromska gymnasiet is the largest upper secondary school in Karlskrona. More than 1,000 students attend one of the seven 3-year educational programs given at the school: the Child and Recreation Program, the Construction Program, the Electricity Program, the Energy Program, the Arts Program, the Vehicle Program or the Health Care Program.

Science Studies A

Modern society is to a very high degree based on science and technology. At the same time, the speed of development in science gives rise to new questions, not least of an ethical nature. The subject of science studies aims to describe and explain the surrounding world from the perspective of science. The subject also aims to create an understanding of the methods and results used in, and achieved by, science. In addition, the aim of the subject is to provide knowledge in order to enable students to determine their views on issues that are important for the individual and society, such as genetics and sustainable development. Modern science is characterised by division into many specialist areas, yet at the same time many questions require an interdisciplinary approach. It also deals with the issue of how people’s worldviews have changed because of scientific progress.

The subject of science studies is divided into two courses, Science Studies A, which is a core subject, and Science Studies B. According to the syllabus, the students have to attain eight goals in order to complete Science Studies A successfully. In the example below, the students were working towards two of the goals: The student should (1) have knowledge of the growth of scientific worldviews, as well as the history of the universe and the earth and (2) be able to understand the difference between statements based on fact and those based on value judgements in science.

During the 2003 autumn semester, 147 students at Tornstromska gymnasiet participated in a film exercise as a part of Science Studies A. The students were enrolled in seven different programmes, and none of them could reasonably be expected to have any deep knowledge of science. Before the film exercise began, each group was given 5 hours of instruction about the theory of evolution, natural selection, Charles Darwin’s biography and a basic overview of social Darwinism. All of the students should therefore have gained a basic understanding of scientific explanatory models, from the Big Bang until modern times.

As an introduction to the exercise, the students first viewed the film Selling Murder: The Killing Films of the Third Reich (Burleigh, 1991). The film is a narrated documentary about the use of Nazi propaganda films in the execution of the euthanasia programme. The film the students watched is narrated in Swedish. The film contains scenes from propaganda films such as Was du erbst (What you inherit), Erkrank (Hereditary illness) and Dasein ohne Leben (Existence without life). The voice of the narrator provides a running critical commentary.

The film is approximately one hour long. Directly following the film, the students were instructed to sit quietly at their desks. The teacher then handed out a questionnaire, which the students were asked to fill in on their own, without discussing their answers with anyone else. When this was completed, the students were given a 20-minute break, after which they returned to the classroom. The subsequent discussion was carried out as democratic deliberation (see above), and mainly dealt with the way people with disabilities are treated in Sweden today and any noticeable contemporary tendencies towards social Darwinism. The discussion also touched upon possible reasons why certain individuals become perpetrators or passive bystanders, whereas others take on the role of active bystanders. Some of the groups also wished to discuss which attitude people should take towards the modern Nazi groups found in Karlskrona and its surrounding area. During the final stages of the discussion, the teacher discussed the students’ emotional reactions with them.

In the beginning of the questionnaire, the students were asked to explain the difference between Darwinism and social Darwinism. The vast majority, but not all, successfully provided basic definitions of the concepts. On several earlier occasions, a few of the students had shown that they were influenced by Nazi ideas. Several of these also appeared to be wary of openly sharing their opinions with others. One young woman answered the questionnaire with the following words: Unfortunately, I can’t write anything… Because I don’t have any thoughts… I have seen so many films like this and read books… So it’s kind of become an everyday thing for me… And unfortunately, I can’t write what I personally think and believe because it will just be wrong… A young man, who several teachers believe to be influenced by Nazi ideology, answered: Social Darwinism is equal to the survival of the strongest and that people are making the selection. According to Darwinism, it is the most adaptable that survives and nature that makes the selection. I think that social Darwinism fits best, the strongest survives.

The students were also asked to freely describe what they thought of the film. Most of them stressed that it was grishly
and disgusting, yet important, educational and interesting. Many described feeling physically ill while watching the film, and said that they were deeply moved by it.

I always feel so bad when I watch films like this. I mean, the film really shows what it was like—and it was ghastly. Just seeing the way it was in the gas chambers makes you sick. Hearing the men say they were helping the handicapped [sic] people to death so that they would escape suffering just makes you furious. This film really made me feel aggression and other strong emotions.

Others had questions about how people could be perpetrators or bystanders:

I don't understand how people like that think. Killing innocent, handicapped [sic] people. How could people agree with Hitler's thoughts and opinions? It's terrible, to put it bluntly.

Many of the students stressed how effective the propaganda of Nazi Germany was, and that this makes it understandable that the citizens participated in the mass murder:

I think that the film was good and informative about how manipulative the Nazis were. But this film could also even inspire young Nazis today. Even though they are critical of Nazism in the film, those old films could still manipulate people today.

Apparently, many students answered the questionnaire based on their own personal situation. One young man wrote:
The film showed what happened during World War II. If we still had the same system today, my little brother would be dead.

The last item on the questionnaire asked the students to provide any examples of contemporary tendencies towards social Darwinism that they could think of. The responses were varied, and most did refer to today's situation in Karlskrona and Blekinge. These dealt mainly with modern-day Nazis, NSF and racists. Some of the students are refugees who came to Sweden during the 1990s. Most of these exhibited strong and pronounced views on social-Darwinistic tendencies in modern Sweden, perhaps in Karlskrona particularly. One young man, who comes from the Balkans, wrote:

I think there are a lot of Nazis here in Sweden, most of them here in Karlskrona. Groups like NSF and such are just one part of them, but there are many that have Nazism in their hearts but don't dare to show it.

Another young man who has experienced war first hand wrote:

There are a lot of Nazis in the community, but most of them don't show it; they keep it inside themselves. But then there are groups like NSF. They show themselves openly and try to recruit people to their group. The also want to get involved in the local government, which means people could vote for them and this isn't good.

The students listed a number of different phenomena that they believed could have roots in social-Darwinist thinking. Their answers took up everything from animal experiments and breeding to bullying. Many of the young men mentioned the oppression of women in the Middle East as a form of social Darwinism. Others wrote about crime and sexuality:

Racists are trying to make Sweden exclusively Swedish. According to the racists, it's the immigrants who are committing all the crimes and living on our tax money. And many people of different sexual orientation are also thought of as strange. But no-one is just the same as anyone else.

Further Education: Experienced Teachers

In order to be better prepared to fulfil the aims concerning norms and fundamental values stated in the curriculum Lp94 (see appendix), twenty-nine teachers working at Tornstromska gymnasiet attended a university course named Moral courage, basic values and democracy. The head of Tornstromska gymnasiet also wanted the staff to improve their skills in counteracting the students' xenophobic behaviour. The course included lectures, literature studies and a field trip to Poland with visits to several camps, for example, the main camp Auschwitz, Birkenau and Plasow.

The course was a multidisciplinary introduction to democracy contra Nazism and fascism, and covered Holocaust history and Jewish life. It also covered pedagogic approaches that can be used to fulfil the aims concerning democratic values and norms as stated in the curriculum.

To determine the participants' attitudes towards and previous knowledge about central issues, the teachers completed a questionnaire before the first lecture. The questionnaire included concepts such as democracy, moral courage, fundamental values and norms in education, anti-Semitism, racism, human races and historic events connected to the Holocaust. In this paper, we focus on the concepts of racism and human races.

Some of the teachers defined racism as "when people are treated in an undemocratic way due to race, religion, language, nation" or "when people consider a race—their own race—as being better than any other and therefore deserving better living conditions, premises and rights than others". Such definitions might imply that these teachers give credence to the idea of the existence of human races.

Other teachers seemed to understand racism as being related to different nations: racism is "when one slanders and shows contempt for a nation" or "hostility towards other nations". Some of the participants embraced moral or religious aspects in their definitions:

[Racism means] being convinced that human races exist in reality (as among dogs) and that those "races" have different intellectual qualities. This division of humanity also supports the idea that some people are superior (intellectually) to others, and that these "superior races" are chosen by God to direct (or exploit...) the rest.

The teachers completed the questionnaire before their first lecture on biological aspects of the Nazi regime (i.e. racial biology, Nazi-medicine, today's scientific knowledge, etc.). They were instructed to explain why it is wrong to stress the idea of the existence of human races. Some of the teachers reacted at the negation of the idea of races:

In my opinion human races exist. We are different! This does not automatically mean anything negative. Japanese
people can drink less alcohol than Europeans. The bodies are different, that is, their skin and physical appearance.

After the lecture on the biological or medical perspective, the participants took a preliminary examination. At that time, a majority of the teachers were able to describe the concept of race in a manner more in accordance with modern science. However, there were exceptions, as some participants still strongly advocated their own racial theories while at the same time questioning the validity and reliability of modern scientific research.

During the lecture, the teachers watched the same film as the students at Tornstromska gymnasiet (see above). Directly after the film, the group was asked to record their impressions by filling in a new questionnaire. As the experienced teachers had watched the film together with the student teachers, 50 persons completed the questionnaire. This time the questions focused on the differences between Darwinism and social Darwinism. The teachers were also asked if they were aware of any contemporary expressions of social Darwinism.

Most of the students provided very short answers when explaining the differences between Darwinism and social Darwinism. However most of the answers were according to scientific knowledge. On the other hand, some participants gave explanations that raise the question of whether or not they are expressions of underlying anti-democratic attitudes:

Darwinism means that the natural requirements determine what species/animal will survive. Environmental influences. Social Darwinism means selections, where the best humans will survive.

What does this student mean by “the best humans”? Is this a question of linguistic limitations or do these words actually express the author’s intended meaning?

The students were also asked if they had noticed any contemporary expressions of social Darwinism. Many of them provided short answers, such as “xenophobic parties”, “the Nazi racial ideology” and “neo-Nazis”. Answers like these might mirror the realities of modern society, and some of the students seem to be aware of any contemporary expressions of social Darwinism.

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The students were also asked if they had noticed any contemporary expressions of social Darwinism. Many of them provided short answers, such as “xenophobic parties”, “the Nazi racial ideology” and “neo-Nazis”. Answers like these might mirror the realities of modern society, and some of the students seem to be aware of the existence of anti-democratic political parties. Some students considered connections between Nazism and genetic techniques:


Others focused on modern scientific techniques:

Genetic techniques, where it is possible to check whether a foetus has got any inherited diseases, and thereafter decide whether it shall be born or not. “Is it right or wrong to give birth to a handicapped [sic] child” Today some people discuss questions like that.

In the last example, the student added another dimension: The Nazi movements existing today want to exterminate humans that they don't consider to have qualities to be “healthy, strong, Aryan humans”, that is, the NSF [...].

The experienced teachers completed the final stage of the course by reorganising the existing courses at Tornstromska gymnasiet. The work was done in groups of 3 to 5 teachers, who were jointly responsible for producing a final report. Most of the groups from Tornstromska gymnasiet had difficulties in applying what they had learned during the course in the new context of reorganising the existing upper secondary school course. This could possibly be explained by many factors, such as an overwhelming workload. On the other hand, in the course evaluations many of the participants emphatically stated that they did not understand how they would be able to use their newly gained knowledge in their jobs as teachers. We discuss this problem below.

Further Education: Physicians

The group consisted of nine experienced physicians, specialised in gynaecology, obstetrics and paediatrics. The course was approximately two years in duration and was arranged by a private company working in the field of educational services. The group began with literature studies and several seminars focusing on NS-medicine, the Nazi euthanasia program and an introduction to Holocaust history, with special in-depth studies on the history of racial biology. After three seminars, the group visited Birkenau and the main camp Auschwitz.

As preparation for the field trip to Poland, the participants completed an exercise. Each of them received two copies of authentic photographs: one depicting a man who was a physician during the Nazi-era and the other depicting a patient. An authentic anamnesis was added to the photo of the patient. The participants were instructed to provide a professional assessment of the patient and to write a referral to the doctor in the photo and ask for his second opinion. The group members received different photos and wrote their referrals at home in Sweden, but brought the texts to Poland.

A local guide helped the group in Poland, but the participants also had the opportunity to meet Polish colleagues. During the second day in the former camps, the group focused on the medical perspective, that is, experiments performed by SS-doctors, the work performed by Jewish colleagues in the camps, problems with epidemic infectious diseases caused by the sanitary problems and neglected health care in the camps. Their previous literature studies had provided the physicians with knowledge of the medical perspective. On the scene in Poland, they were able to visit the very buildings or ruins where it all had taken place. The authentic experiences brought forth strong emotions, especially as two of the participants are second-generation survivors.

While walking around the former camps during the second day, the participants also worked with the referrals. For example, when returning to the ruins from crematorium II at Birkenau, the participant who had consulted the photo of Mikiłos Nyiszli12 was asked to read the letter of referral. The

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12 Doctor Nyiszli was a Hungarian Jew and pathologist who was deported to Birkenau in May 1944. As a prisoner Doctor Nyiszli was a part of Sonderkommando at crematorium II, appointed by SS Doctor Josef Mengele to carry out post-mortems of twins and others whom Mengele had subjected to medical experiments. Doctor Nyiszli survived Birkenau and other camps but died of heart attack 1956.
photos were presented to the rest of the group. The actual biographies of Doctor Nyiszli and the patient were recounted. This pattern was repeated nine times during the day in the former camps. Each participant presented his or her referral, a new doctor, and a new patient. They then recounted their true biographies. All of the doctors had been in the camps as SS doctors or as prisoners. Most of the patients were murdered in the euthanasia program.

The group members’ first reaction was silence. All of them had consulted colleagues who either had committed terrible crimes or had been prisoners in the camps. All the patients were killed, either by gas or by lethal injections. This raises questions about professionalism, ethics, responsibility, guilt and the underlying mechanisms that turn a person into a perpetrator. And who are, or were, the bystanders? In the course evaluation, several of the participants stressed the importance of the exercise, because it helped to pinpoint momentous existential aspects.

After the first field trip, the group continued their literature studies. Some group members decided to learn more about ethics and legislation regulating the use of animals and humans in medical experiments. Others wanted to learn more about the details concerning some of the medical experiments that SS doctors carried out at various concentration camps. Some participants studied how sterilisation and abortion policies have changed over time. All of this was presented and discussed at seminars in Sweden.

During the second year the group focused on the present and the working situation they all were deeply involved in. This was very demanding as some of the physicians had to seriously confront the ethical legitimacy of their own clinical practice. At this point, a specialist in psychology was involved in the education. The group went on with more literature studies and seminars. During the second year, the group visited some of the killing centres the NS-regime had used in the euthanasia program. This was their second field trip.

Different groups experience different aspects of authenticity when they visited scenes connected to mass killings during the Nazi-era. The physicians reacted strongly after a visit at Hadamar, one of the killing centres in the T4-program. The reason was the use of carbon monoxide as the killing gas and not hydrocyanide, as at Birkenau. Their professional knowledge made the choice of gas as a euthanasia method significant. After a discussion about the presumed physiological responses caused by either gas, the physicians concluded the method used in death camps was even crueller than the method used at Hadamar.

The course ended with a summing-up seminar in which the group members presented their conclusions and evaluated the immense amount of effort they needed—on both the professional and the private level—to get through the course. Due to the participants’ high level of education and pronounced ambitions, they managed to be the main driving force in their own coursework. This means that the group members readily suggested interesting and relevant articles and other literature. It was a very demanding time for some of the participants, because they were re-learning so much and thus forced to re-evaluate their own choice of profession. In these situations, it was beneficial that the entire group consisted of physicians, who could really understand and support each other.

Over the course period, the seminars were increasingly characterised by democratic deliberation. In the beginning, some of the physicians found it difficult to participate in the dialogue, because this procedure diverged from what they were used to from their earlier university studies. However, as the group grow stronger, and the members were increasingly supportive of one another. Judging from the evaluations, the procedure itself helped some of the participants to overcome the personal difficulties that came into light during the process. The main disturbances the participants experienced during the course were connected to how their work at the hospitals is organised. Emergency duty was reported as a major problem.

University Education: Teacher Education Program

The Teacher Education Program (TEP) in Sweden was reformed13 in 2001. The modern education includes enhances possibilities for individualisation. To ensure a certain degree of continuity within the programme, all students, no matter what age groups they plan to teach later, study several courses in general education together. This block of courses makes up 1.5 years of study in what can be called “common basis of knowledge for teachers”. This part of the TEP includes education in crucial pedagogical theories, fundamental values and norms in a democratic society, as well as interdisciplinary studies, including science studies14.

Vaxjo University is the second largest university in southern Sweden and more than 14,000 students attend its various education programs, the TEP being the largest program. Since autumn 2001, the 350 TEP student that begin

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13. The students are free to specialise in certain areas of interest. They are also to broaden or change their areas of competence through complementary studies. The student teachers have a 20-to-30-week practicum in public schools in order to combine theory and practice. It takes 3.5 years of study to become recreation instructor, a preschool teacher, or gain qualification to teach younger age groups in the compulsory school. For TEP students aiming to teach in upper secondary school and for those who aim to teach older age groups in the compulsory school, the programme will take 4.5 years. The new TEP is research-preparative, which means that educated teachers have enhanced possibilities to enter the scientific field.

14. One of the areas of general knowledge that is to be covered by all teachers is “knowledge of the ecological conditions governing life on earth and basic knowledge of ecology and the preservation of biodiversity” [Swedish Government, 1999/2000]. These skills are also implicated in the new Degree Ordinance for the Bachelors/Masters in Education, which states that teachers should be able to “become familiar with, analyse and take a position on universal matters, ecological living conditions and changes in the world” [National Agency for Higher Education, 2001:23].
their education each year at Vaxjo University all start by taking a 10-credit course (corresponding to 10 weeks of full-time study) in *Interdisciplinary perspectives on Sustainable Development*\(^\text{15}\) (one of the courses in general education).

During the autumn 2003 the TEP students participated in a compulsory exercise titled *Biologic diversity – genetic perspective*. A minor part of the total student population are excluded in the example below, that is, 232 students (out of the total group of approximately 300 students) are represented in the example below. However, all students did the exercise. The 232 students were divided into 18 groups. Before the exercise, the students had attended lectures covering not only the traditional scientific topics of sustainable development (such as the greenhouse effect, radiation and acidification) but also concerning environmental ethics and fundamental values.

The exercise started when a group (10 to 15 students) had gathered in a room. The teacher entered the room dressed as a stereotypical scientist—dishevelled appearance, enormous white coat, gigantic goggles etc.—and presented herself as a “professor”. This striking character also claimed to be the head of a research department at a gene technology company. After presenting herself, the “professor” firmly declared that the group would be subject to a selection process in order to find out who had “the best and most favourable genes”.

In all groups, the students looked very surprised when confronted by this very strange-looking “professor”. Apparently, this opening diverged from their expectations. However, all students took part in the selections with enthusiasm, investigating themselves and trying to find out who had the desirable traits (due to recessive inheritance). Not one single student protested. After a while, the “professor” firmly declared that the group would be subject to a selection process in order to find out who had “the best and most favourable genes”.

The dramatisation ended with a prize giving ceremony. As part of the evaluation, the students were asked to give their opinions about question-based learning\(^\text{16}\) in order to take active part in how to use future genetics and genetic techniques? The questions were to be answered by the teacher after the break.

Most of the groups asked questions about cloning, foetal diagnostics, heredity, genetically modified organisms and related issues. The teacher answered by explaining basic facts, and the group discussed their newly gained knowledge in light of what is stated in the curricula (see appendix) concerning democracy, norms and fundamental values in school etc.

After the exercise, (which took approximately 3 hours) each student completed a compulsory written evaluation. The first question was the following: what does a democratic view of people mean to you when we discuss applied genetic techniques and sustainable development in a genetic perspective? Most of the students provided answers indicating that they believe that all people are of equal worth, no matter what they look like or whether or not they have physical or learning disabilities. Others stressed the importance of democratic rights, for example freedom of speech and freedom of opinion:

**For me, a democratic view of people means that all people should be of equal worth. Everyone should be allowed to have their own opinions as long as they don’t harm others.**

As part of the evaluation, the students were asked to give their opinions about question-based learning\(^\text{17}\) as a way of learning. Nearly all of them had a favourable opinion about it, and appreciated that the students (for once) could influence the focus of their lesson. Perhaps this method is particularly suitable when it comes to complicated issues with clear ethical aspects:

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\(^{15}\) As stated in the definition from Agenda 21 (UNCED, 1992), the term “sustainable development” embraces ecological, as well as economical and sociological dimensions. The documents from the international conference *Education for a Sustainable Future* in Thessalonica (UNESCO, 1997) emphasise the importance of education for citizenship and civic knowledge in supporting sustainability. Studies of social sciences and humanities need to be steadily integrated in the educational process. This means that education for sustainability differs from the traditional forms of environmental education in school, which have mainly been the responsibility of the science teachers. Issues concerning environmental problems have traditionally been explained from scientific perspectives, but not much effort has been put into the interdisciplinary characteristics of sustainability.

\(^{16}\) Usually the concept of biologic diversity is defined on three levels: (1) There must be a diversity of biotopes, (2) there must be a diversity of species within every biotope and (3) there must be genetic variability within every species in each biotope. All levels must be fulfilled for biologic diversity to be present. Absence of genetic variability within a species will lead to inbreeding and thus genetic depression, that is, the risk of hereditary diseases or inherited genetic damage will increase.

\(^{17}\) The evaluation included a question about pure factual knowledge: “Why is it important to maintain genetic diversity?” This item was included provide a rough estimate of whether question-based learning, as it was applied in this case, was an effective teaching method. The results of the evaluation show that all too many students were unable to provide adequate answers. This indicates that a large proportion of the students were unable to acquire sufficient factual knowledge. On the other hand, many of the students claimed that they had “learned a lot” about research in the biological sciences during the exercise, for example, foetal diagnostics, genetically modified organism and the influence of nature and nurture on a person’s characteristics.
It’s a really good way to work. You are at the actual level of the group. You base things on the group’s questions and interests. This is probably optimal when you are dealing with difficult issues like the ones we discussed. Finally, the students commented on the “professor’s” surprising introduction to the exercise. Practically all of them thought this was positive. A few mentioned that the element of surprise was good because they had such low expectations of the exercise.

I think it was a good way to get everyone to see that you can’t always tell if people have “good” DNA by their physical appearance. The point was to get us to realise this and make us—through humour with serious undertones—wake up and start reflecting about genetics and applied genetics.

Others realised that the confrontation with the “professor” had a deeper and more complex purpose:

I think that it was meant to arouse our interest, and to get us to be critical of a controversy subject as applied genetics can be.

Another student wrote:

One woke up and reacted. One started thinking about it, but didn’t oppose until the teacher gave the historical background.

Some of the students were very enthusiastic:

I love this kind of “provocation”! It’s a great way to get people to start reflecting. I think that the introduction was supposed to show that it’s "sick" to divide people into groups based on how they look. Just like the Nazis did during World War II.

Others stressed the power aspect of the future use of applied genetics:

The bottom line is that the scientists should not have the power to control research.

Discussion

As teachers and teacher educators, we believe that we have the normative task to combat, with the utmost seriousness, all anti-democratic tendencies, including Nazism. As we are also biologists, we have found it appropriate to work within this field. Below we summarise and discuss our observations based on what we have written above. We do this by answering a number of questions that are of the utmost relevance in this context. We conclude the discussion with a brief description of our future plans and suggestions for improvement.

Why should we teach about the Holocaust and other mass killings during the Nazi era?

This is a question about legitimacy, and it can be answered on many different levels. By way of introduction, we would like to refer again to Adorno’s introduction to his 1966 radio speech in Hessischer Rundfunk (see the introduction above). The humankind must never ever experience such catastrophes again. The same message is found in exclamations such as Jamais plus! Never again! Nicht wieder! and Adigr mar!, which we recognise from various memorial sites and monuments, such as the modern-day inscriptions at the former death camp of Treblinka. Yet despite these strong admonitions, we know that the phenomenon of genocide exists even today. The slaughter in Rwanda ten years ago can serve as an example. At the same time, we know from countless research reports that each genocide is in some way unique; each event differs in some way from previous events. For example, we believe that the attempt to exterminate the European Jewish population is unique in many respects. For instance, it is the most thorough, systematic and methodically industrial genocide that we know of.

Each case of genocide is unique, but there are some general phenomena that make these mass killings possible. We believe that one of these general phenomena is the existence of anti-democratic ideological frameworks, such as the social Darwinism and racial biology that are found in Nazism. We also believe that these anti-democratic frameworks must be widespread (among others than the intended victims) before genocide or extensive mass killing can be carried out. Therefore, we have attempted to focus on perpetrators and bystanders in this paper. Without willing executioners, there would not be any genocides or other mass killings. Hence the great importance of revealing the mechanisms and the ideologies that led to the industrial-scale murder during the Nazi era.

In the context of modern-day Sweden, Nazism is not dead. This is shown by the annual report (2004) of the Swedish Security Service, which was published at the end of June. According to the report, the Nazis increased their political activities during 2003 and have become more visible in society in recent years. The various Nazi groups co-operate increasingly, and the earlier conflicts within the White Power sphere seem to have subsided. This is what the Swedish Security Service report states, but it is also possible that Nazi ideas are latent among many people apart from the organised Nazis—among teachers and student teachers, for example.

This, in turn, provides enough justification for us to teach about the Holocaust and other mass killings during the Nazi era. Education within the schools and universities is an important part of these efforts. But at the same time, we wish to stress that we are not so naïve as to believe that teaching within the contexts of formal and informal education is the one and only way to make progress in this area. Instead, many other community organisations within society must be involved in this work. This applies to the political level particularly. But despite this insight, the educational system is still important. This has been understood for a long time; the schools’ responsibilities were even emphasised by Adorno in his radio speech.

Why should we teach about medical and genetic aspects of the Holocaust and other mass killings during the Nazi era?

Medicine and genetics are part of our knowledge of biology. Biology is part of society and should not be viewed as an isolated apolitical area. There are instead many historical and
contemporary examples of how knowledge of biology has been used for political—and even anti-democratic—purposes. This relationship is summarised by the title of Bengt Olle Bengtsson’s (1999) book Genetik och politik: Berättelser om en vetenskap mitt i samhället (Free translation: Genetics and politics: Tales of a science in the midst of society). Teaching about medical and genetic aspects gains legitimacy through, for example, the fact that you can then counteract pseudo-scientific misinterpretations that are being used for political purposes, spread counterarguments against racism, point out the risks of genetic depression etc.

In Dialectics of Enlightenment (2002), Horkheimer and Adorno point out that the use of technology in contemporary society, and thus the ambition to master Nature, can have catastrophic consequences. Instead of prosperity, the opposite will occur. The Holocaust and other mass killings during the Nazi era can be seen as examples of this phenomenon. But we would like to discuss how even the possible applications of modern genetic techniques and genetics could lead to disastrous consequences. According to Horkheimer and Adorno, catastrophe can be avoided if humankind takes advantage of its powers of Reason. We believe that this can be achieved through an education that provides a thorough knowledge of the possibilities and dangers of genetic techniques, and that this knowledge should be spread throughout the various sections of the population. This is not only a question of education but also a question of democracy. Basic, but scientifically sound, knowledge about the possibilities and dangers of genetic techniques should be a part of what we call general knowledge, to enable citizens to make informed decisions about, for example, how genetic techniques shall be used in society in the future. If you aspire to work with Holocaust education, you must also ensure that the learners can take in enough fact-based knowledge from the social sciences, such as history. In the end, this is a question about power and democracy.

How should we teach about the medical and genetic aspects of the Holocaust and other mass killings during the Nazi era?

Teaching about the medical and genetic aspects of the Holocaust and other mass killings is a matter of communication. When teaching, how can we feasibly communicate these things to the learners? At times this question is interpreted as if it were about the choice of a teacher’s actual teaching methods. We have attempted to show that the choice of method is subordinate to the view of knowledge—and its adherent theoretical aspects—that teaching should be based on. This makes great demands on educators who are expected to have more than superficial epistemological insight. Educators are assumed to have internalised suitable theories from which they identify processes that they then put into concrete form through their chosen teaching methods in order to create favourable conditions for learning. This means that the responsible educator must be highly skilled in didactics.

In this paper we have emphasised our emancipatory approach to knowledge, which is founded on Critical Theory. We have applied this in the six-stage process described above (pre-conceived notions, problematising, contextualisation, reflection, newly acquired knowledge, emancipation). We have also shown that teaching should cover three different dimensions, that is, the scientific-cognitive, the social-contextual and the emotional-personal. In the four examples of teaching practice that we have provided here, we have structured our actual teaching practice in various ways. In other words, we believe it is crucial for educators to have at their disposal a wide variety of methods for creating a favourable climate for learning, but that the fundamental theory, view of knowledge and the process should remain firmly in place.

However, the choice of practical teaching method is not uncontroversial. In the dramatisation exercise, we chose to use a stereotype: the “mad scientist” whom we all recognise from the countless books and films in which unscrupulous scientists are depicted. That is to say, we have chosen to use a stereotype despite understanding the potential risks involved. This is particularly delicate when it comes to teaching about the Holocaust, because the entire Nazi propaganda apparatus was based on stereotypes. But we believe that we managed to strike a balance. The “professor’s” appearance was of very short duration, and afterwards there was time to discuss any difficulties with the students. Moreover, the “professor” did not represent any ethnic groups or any of the usual Nazi targets. Instead, the “mad scientist” became a caricature representing the perpetrators, someone we wished to warn the students about. Or maybe it is the well-mannered, ordinary looking scholar—with hidden but dubious intentions—we should warn about? We have also attempted to use humour, which complicates the method even further. What is considered humorous is exceedingly dependent on context, but apparently, the student teachers share our brand of humour. Even so, we would not stage a dramatisation in an unfamiliar context without feeling secure about our knowledge of the conditions.

We would also like to point out that the exercise was a dramatisation, not a simulation. In no way did we attempt to imitate reality. The “professor” was a caricature, which should have been apparent to all adult participants, and the examples were fictitious exaggerations. With these words we wish to caution against dramatisations, simulations or role-plays whose purpose is to give learners an idea of what actually went on during the Nazi era, because it is absolutely impossible to even come close to the horrors the victims were put through. The purpose of our dramatisation was instead to achieve a quick and effective transition from the fictitious example and the racial-biologist thinking of the past. In the space of a few minutes, we moved from laughter to the utmost seriousness, and the evaluations show that the students understood this.
What content should we use in teaching about the medical and genetic aspects of the Holocaust and other mass killings during the Nazi era?

The question of what to teach is a question of selection. What material should educators use? On which aspects should the lessons focus? When it comes to the medical and genetic aspects, the content should be both relevant to and in line with current scientific knowledge in the biological sciences. But we also understand that other subjects that are a part of the multi-disciplinary tapestry need to have a sound scientific basis. This means that the teachers responsible must have relevant knowledge about their own subjects—both wide general knowledge and deep specialist knowledge—even if they have access to experts in other subjects. Knowledge of history is, of course, imperative.

We have emphasised the importance of fact-based background knowledge for a well functioning continued learning process. We believe that teaching about the Holocaust, as described in this paper, is characterised by a dialectic relationship between the various groups of learners and the subject content itself. People without an education in biology often need to expand their knowledge about DNA and what is possible to achieve using modern genetic techniques. This is connected to the scientific-cognitive dimension. On the other hand, the converse often applies. People educated in biology often need to expand their knowledge of the Holocaust, eugenics, Nazism and their connection to their own scientific field. This is bound to the social-contextual dimension. This means that teaching about the medical and genetic aspects of the Holocaust and other mass killings during the Nazi era requires a broad spectrum of content, which in turn entails a multi-disciplinary approach.

The content used in the scientific-cognitive and social-contextual dimensions must be adapted to the learners’ preconceptions. This is one of the reasons that it is advantageous to divide students into relatively homogenous groups, for example, physicians in one group and history teachers in another. When it comes to the emotional-personal dimension, the situation is somewhat different. The focus here is personal and individual experiences, the things common to all humankind. This dimension is about providing the students with emotionally moving content. A variety of emotions can be beneficial to evoke, such as joy, sorrow, excitement or others. But it is vital that this dimension should always be underpinned by a sense of seriousness and the understanding that this area of study is important.

We have found that authentic content has many advantages for weaving the three dimensions together, and in this way creating pedagogical space. Testimonies, artefacts, buildings or other objects can serve as authentic content. But we have also shown that different content can be used and still bring about a considerable learning process. However, we wish to point out that the choice of content must be tailored to the current situation. We do not know of any “universal” content that always works with all groups of learners. It is therefore important that the teacher responsible should have access to many types of content. We would also like to see learners being able to influence the choice of content—through question-based learning, for example—which creates more varied and stimulating lessons in which the students are active participants, lessons that are based on the learners’ interests and preconceptions.

Has the teaching led to increased emancipation?

The goal of this approach is for all students to achieve a degree of emancipation from their individual preconceptions, and for each learner to be able to identify the factors that previously have hindered their emancipation. However, this does not exclude the use of a more “technical” (in the Habermasian sense) approach to the learning process (for example, in order to learn fact-based knowledge) or a more interpretive approach (for example, to understand the importance of the phenomenon in various contexts). These three approaches to knowledge are based on the theory of Jürgen Habermas.

The question is whether or not the learners have achieved a greater degree of emancipation. Our answer is “yes, no, and partly”. When it comes to the physicians, the answer is clear-cut. Within this group, the course was the basis of important individual standpoints for many of the participants. Some of the physicians went as far as to change the tasks they actually perform in practice; for example, some of them have chosen to stop performing abortions. Emancipation can lead to drastic consequences, but it can also provide support for learners’ work in the future. One of the paediatricians has, for example, initiated an in-service training course for the staff of the habilitation clinic where he works. The physicians may be the group that has come the longest in the emancipation process. A possible explanation for this is that the group was closely united, secure, highly motivated to study, and relatively small. The main problems in carrying out the course were of the organisational nature. For instance, because of the physicians’ widely varied normal work schedules it was difficult to find suitable times to arrange collective course meetings.

Among the experienced teachers, the situation was in part the opposite. In contrast to the physicians, this group achieved a lesser degree of emancipation. Our analysis shows that this can be due to hindrances in contextualisation, even during the follow-up stages of the process. In the evaluations, it is apparent that many teachers had difficulties in applying their knowledge to a new context. This is also supported by several of the group papers that the teachers wrote at the end of the course. One possible explanation for the contextualisation problems is that the group did not receive enough support during the analytical phase during and after the trip to Poland. Many of the teachers went through powerful emotional authentic experiences during the field trip, but because they were not adequately prepared to process them, the analytic process ceased for them. This conclusion is supported by the evaluations, in which teachers requested better processing of the experiences connected to
the field trip. This shows that democratic deliberation is a very important step in the learning process. If this tool had been made clearer to the teachers, they might have had better opportunities for analysis and, ultimately, emancipation.

The physicians and the experienced teachers were the groups that presumably had the greatest possibilities for acquiring fact-based knowledge. But as we have shown above, this does not guarantee that students will achieve a greater degree of emancipation. When it comes to the student teachers, the opposite is the case. In general, this group had relatively fuzzy ideas about what it all was about until they were confronted with the crazy "professor". But we do believe that the student teachers achieved a certain degree of emancipation, not least when it comes to emancipation from earlier prejudices and misunderstandings about genetics and genetic techniques. The students’ evaluations support our view. Moreover, it is clear that the dramatisation exercise, with its subsequent question-based learning and democratic deliberation, not only gave rise to an increased thirst for learning and changed attitudes towards the subject area, but also provided the insight that genetics, genetic techniques and the industrial-scale killing during the Nazi era concern all of us.

In the analysis of the examples above, democratic deliberation has shown itself to be an important instrument for achieving emancipation. But our example with the upper-secondary school students shows that this instrument does not always work. Two of the students in the example hold more-or-less cemented national socialistic ideas. It is also clear that these two will not allow themselves to be influenced. Instead, they choose not to participate in the discussion, because they know they will meet resistance. They have probably also understood that the NS ideology embraces ideas that are punishable if expressed in Sweden, or that are contrary to the school’s fundamental values as they are expressed in the relevant curriculum. Hence, these students choose to abstain from testing their own points of view against the conflicting arguments of others. We believe that both sides lose in this case, and at the same time it is clear that our teaching approach is probably not adequate for getting dedicated Nazis to see the flaws in their basic outlook. To achieve this, other types of approach are probably needed.

What about the majority of the upper-secondary school students? Did they achieve a greater degree of emancipation? We found it difficult to assess this group for two reasons: time and linguistic ability. Some of the students were definitely able to emancipate themselves from their preconceptions, and can today identify the various phenomena that had previously obstructed their emancipation. We are also under the impression that many of the upper-secondary school students achieved a greater degree of emancipation than did their own teachers, who were a part of the group mentioned above. Other students have only begun the process. But because the emancipation process takes place over time, and because some of the students have difficulties in expressing themselves verbally in speech and writing, it is difficult to assess their degree of emancipation. However, this situation shows that follow-ups are crucial—perhaps when it comes to groups of limited linguistic ability in particular—and that democratic deliberation requires that all participants have access to a common language. Individuals who cannot meet the linguistic demands will be excluded from the democratic process, which we find completely unacceptable. It is vitally important that the teacher responsible understand the importance of this, whether it is a case of spoken language, sign language, or any other language. The point is that all participants should share a common and relatively well developed language in order for democratic deliberation to be effective.

Has this approach focused on the roles of the perpetrators and bystanders?

In a Swedish context, this is a question of understanding your own personal responsibility, and understanding that without any willing executioners there would not be any victims. We believe that we did focus on perpetrators and bystanders in our teaching. This observation is supported by many of the statements of the secondary-school students. The physicians are the group that has experienced the most far-reaching consequences of personal responsibility. When it comes to the student teachers, we know that many of these will reflect upon the role of perpetrators during their continuing education. The experienced teachers, in turn, probably have a different view of the roles of perpetrators and bystanders during the Nazi era now than they did before.

However, to focus on the roles of perpetrators and bystanders in education, you also need to touch upon the concept of victims. In our judgement, students in Swedish schools are on several occasions taught about the Holocaust and the crimes against the Jewish population in Europe. In recent years, the victim concept has been emphasised earlier, including the Roma and the Sinti, as well as the murder of homosexuals. This means that Swedish students, during the course of their schooling, should reach the understanding that the Nazis and Nazism are responsible for several genocides and mass killings. However, one of the Nazi targets—people with disabilities—might have been neglected during the typical Swedish student’s schooling. Therefore, we have chosen to give particular emphasis to their fate in many of our teaching examples. On the other hand, we have also tried to see what the victims have in common. It is, after all, about human beings.

Suggested Improvements and Future Plans

As a result of the student teachers’ evaluations, this autumn we will make several changes that we hope will lead to improvement. The student teachers requested a better theoretical platform as preparation for question-based learning. We shall attempt to achieve this by providing them with relevant literature as well as a lecture explaining basic terms and concepts. Moreover, we shall be even more careful about the six-stage process and make sure that we include content that relates to each of the three dimensions. We think this is of utmost importance for our ability to teach successfully. We also wish to emphasise the importance of offering the students...
enough support during the analytical stage.

We are also planning four other academic distance courses, which will include medical and genetic aspects of the Holocaust and other mass killings during the Nazi era. These courses are aimed at different target groups and will hopefully meet the existing demand for courses of this type. However, it is still unclear when we will be able to implement these courses, because some organisational difficulties remain to be overcome. We also have the opportunity to update two additional courses, so that they will be more relevant to the didactic art of teaching biology. These two courses are at the post-graduate level, and can be used, for example, as further education for in-service teachers. As we see it, there is nothing stopping these two courses from covering areas related to Holocaust education.

At the present conference, we are here in our roles as teachers and teacher educators. But we also have a pronounced research interest and hope to be able to incorporate the aspects we have presented in this paper in our research. We have also understood the need for further education in didactics within the university department in which we work. We shall therefore attempt to develop a clearer epistemological platform that can be applied in teaching practice. Overall, our efforts and our main goal are to lay the foundation for a future sustainable society in which we do our best to prevent future catastrophes. But we also understand that this is not a “one-man” job. In order to succeed, we must all work together and recognise each other’s skills, knowledge and abilities.

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Organisation of the Swedish Educational System

The Swedish educational system consists of informal and formal education. The formal education includes the public school system, independent schools and higher education. Informal education in Sweden is run by private companies, adult educational associations and others. Informal education in Sweden is like a smorgasbord offering a varied collection of courses. Below we would like to give a brief overview of the organisation of the Swedish educational system, focusing on formal education and the curricula in particular.

Formal Education

The Swedish public school system is made up of compulsory and non-compulsory schooling. All formal education throughout the Swedish school system is free. The academic year normally begins at the end of August and runs to the beginning of June the following year. The regular school week is five days long.

Compulsory schooling includes regular compulsory school for all children between the ages of 7-16 years. In the north of Sweden (Lapland) there are Saami schools for the children who are members of the nomadic herding tradition. Various special schools are included in the public school system. For example, deaf children are offered a 10-year special program.

Non-compulsory schooling includes upper secondary school, upper secondary school for students with learning disabilities, municipal adult education, adult education for students with learning disabilities and preschool classes. Municipalities are required to provide a place in a preschool class for all boys and girls when they are 6 years old.

Upper secondary education is divided into 17 national 3-year programs. All of the programs shall offer a broad general education and basic eligibility to continue studies at the post-secondary level. Almost all compulsory school students continue directly to upper secondary school. There is also upper secondary education for students with learning disabilities. Voluntary schools also comprise municipal adult education and education for mentally disabled adults. The municipalities are also required to offer a special program for new adult immigrants.

Parallel to the public schools there are also independent schools at the compulsory and non-compulsory school levels. The independent schools are publicly financed. Independent schools are open to everyone and must be approved by the National Agency for Education. The education provided by the independent schools shall have the same basic objectives as municipal schools, but may have a profile that distinguishes it from the municipal school.

More than one third of students go on to study at the post-secondary level within three years of completing upper secondary school. Universities and institutions of higher education offer students specific programs or individual courses of study. Most universities in Sweden are state-run.

Curricula in Formal Education

Swedish formal education involves three curricula. The curricula regulate different parts of the school system: the preschool, the compulsory and the non-compulsory schooling. In this paper, we focus on the non-compulsory school.

Democracy is supposed to form the basis of the Swedish school system. The Education Act stipulates that all school activity shall be carried out in accordance with fundamental democratic values and that each and every person working in the school shall encourage respect for the intrinsic value of each person and for the environment we all share. In the curriculum for the non-compulsory school system, which in Swedish is abbreviated as Lpf 94 (Swedish National Agency for Education, 1994), the fundamental values are stated as follows:

The school has the important task of imparting, instilling and forming in students those values on which our society is based. The inviolability of human life, individual freedom and integrity, the equal value of all people, equality between men and women and solidarity with the weak and vulnerable are all values that the school shall represent and impart. In accordance with the ethics borne by Christian tradition and Western humanism, this is achieved by fostering in the individual a sense of justice, generosity of spirit, tolerance and responsibility.

The quote above raises several questions: What does “ethics borne by Christian tradition and Western humanism” mean? Does the above exclude ethics borne by traditions other than Christianity? What are the differences between Western humanism and other ethical systems when it comes to fundamental democratic values? These questions are particularly intriguing when one remembers which group perpetrated the crimes against humanity during the Nazi-era. In light of this, the Holocaust and other mass killings are a tremendous problem for European Christianity.

In our work as teachers and teacher educators, we have to encourage all students to discover their own uniqueness as individuals and thereby try to encourage them to participate in civic life. This means we have to actively counteract any anti-democratic expressions. This is particularly important, as we sometimes have to deal with students who are influenced by Nazi ideology. Lpf 94 states:

The school shall encourage understanding of other people and the ability to empathise. It shall also actively resist any tendency towards bullying or persecution. Xenophobia and intolerance must be actively confronted with knowledge, open discussion and effective measures. [...] As well as being open to different ideas and encouraging their expression, the school shall also emphasise the importance of forming personal standpoints and provide students with opportunities for doing this. [...] All who work in the school shall, however, always uphold the fundamental values that are stated in the Education Act and in this curriculum, and shall very clearly disassociate themselves from anything that conflicts with these values.