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TO DESCRIBE, TRANSMIT, OR INQUIRE

Ethics and technology in school

Viktor Gardelli

Education

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UNIVERSITET

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ABSTRACT

Ethics is of vital importance to the Swedish educational system, as in many other educational systems around the world. Yet, it is unclear how ethics should be dealt with in school, and prior research and evaluations have found serious problems regarding ethics in education. The field of moral education lacks clear and widely accepted definitions of key concepts, and these ambiguities negatively impact both research and educational practice. This thesis draws a distinction between three approaches to ethics in school – *the descriptive ethics approach*, *the value transmission approach*, and *the inquiry ethics approach* – and studies in what way (if at all) they are prescribed by the national curriculum for the Swedish compulsory school, how they relate to students' moral reasoning about technology choices and online behaviour, and what pedagogical merits and disadvantages they have. Hopefully, this both contributes to reducing the ambiguities of the field, and to answering the question of how ethics should be dealt with in education.

The descriptive ethics approach asserts that school should teach students empirical facts about ethics, such as what views and opinions people have. The value transmission approach holds that school should mediate some set of predefined values to the students and make sure the students come to accept these values. The inquiry ethics approach is the view that school should teach students to reason and think critically about ethics and to engage in ethical inquiry.

The role of ethics in the curriculum has not been studied in light of the above distinction, in prior research, and such an investigation is undertaken here. The results suggest that ethics has a prominent, but complicated, role in the Swedish national curriculum. Although no explicit distinction is drawn or acknowledged in the curriculum, all three approaches are prescribed throughout the curriculum, albeit to different degrees. In the general section of the curriculum, the value transmission and inquiry ethics approaches are more extensively prescribed than the descriptive ethics approach. It was found that most of the syllabi contained explicit references to ethics, while some only contained implicit references to ethics, and two syllabi lacked references to ethics altogether. In the syllabi, the inquiry ethics approach is the most dominant, both in the sense of being present in the most syllabi, and in the sense of being more strongly prescribed in many of the syllabi where several approaches occur. The value transmission approach has the weakest role in the syllabi. In total, the inquiry ethics approach is the approach most strongly prescribed by the curriculum. But prior research has shown that inquiry ethics is very rarely implemented in the classroom. In this thesis, it is found that the inquiry ethics and the value transmission approaches are incompatible, given certain reasonable interpretations, which makes the finding that inquiry ethics is rarely implemented less surprising, since value transmission is practiced in schools. Some possible causes, and some consequences, of this is discussed.

The students, in their moral reasoning about technology choices, reasoned in accordance with several classical normative theories – including consequentialism, deontological ethics and virtue ethics – and in doing so, they expressed reasoning that in the discussion is found to be in conflict with the values of the value foundation in the curriculum. These findings

complement earlier findings, for example that students in their actions contradict the value foundation, by adding that such conflicts also exist in their reasoning. The existence of these conflicts is found to be problematic for a value transmission approach.

Many of the students defended very restrictive views on disclosing personal information online, and prior research as well as the present data has shown that adults typically hold views that are very similar to these, concerning how they think that young people ought to act online. On the other hand, youths' actual online behaviour, as reported in earlier studies, differs considerably from this. In line with this, the students also seemed to endorse a form of private morals view, according to which moral choices are simply up to one's own taste, which would yield an escape exit from the restrictive views mentioned above, and permit any behaviour. In the discussion, it is argued that this is the result of an attempt at value transmission from the grown-up community, probably including teachers, which might *seem* to work, since the students claim to hold certain views, but which likely instead constitutes a false security, since these values are not actually accepted, but only paid lip service to, and the adults are therefore wrong in their belief that the students are protected by a certain set of values (that they think the students are upholding), since the students in fact do not uphold, and therefore do not act based upon, these values. This situation risks making the students more vulnerable than had no value transmission attempt been taken in the first place. Hence, the attempted value transmission runs the risk of counteracting its purpose of helping the students acquire a safe online behaviour.

Throughout the moral reasoning mentioned above, extensive variations in the students' reasoning were found, both interpersonally and intrapersonally, both in the decision method and in the rightness criterion dimensions, as well as in between the dimensions. The existence of such variations is a novel finding, and while possible applications in future research are discussed, it is also noted that this existence constitutes a reason to question the successfulness of both the value transmission and the inquiry ethics endeavours of the educational system.

The results and discussions described above highlight the importance of investigating the merits of the different approaches. Several arguments that arise from the material of this thesis are presented, evaluated and discussed. The ability of each approach to fulfil some alleged key aims of ethics education is scrutinised; their abilities to educate for good citizenship, to educate for quality of life of the individual, and to facilitate better educational results in other subjects are all investigated, as well as the ability of each approach to help counteract the influence from online extremist propaganda aimed at young people and to promote safe online behaviour in general.

It is concluded that the inquiry ethics approach has the strongest support from the material of this thesis. Some consequences for school practice are discussed, and it is concluded that changing the role of ethics in the curriculum would be beneficial, downplaying the role of value transmission and further increasing, and making more explicit and clear, the role of inquiry ethics. It is also shown that there are strong reasons for the inclusion of a new subject in the Swedish compulsory education with special focus on ethics.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS

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To my family!

INTRODUCTION

The compulsory school in Sweden, ranging from years one through nine, has two core sets of aims: knowledge and values. Thus, the first two sentences of the national curriculum are: "The national school system is based on democratic foundations. The Education Act (2010:800) stipulates that education in the school system aims at pupils acquiring and developing knowledge and values" (Swedish National Agency for Education, 2011a, p. 9). Values, hence ethics, should permeate all education (Alerby & Bergmark, 2014; Lundgren, 1999; Swedish National Agency for Education, 2011a). It is commonly held that we live in a time that is undergoing changes in norms, culture and technology that are rapid, substantial and far-reaching (cf. Lundgren, 1999; Smeds, 2008). Not least, technological advancements give rise to new ethical topics of relevance to education, amongst these are issues relating to students' online presence.

It is often considered that such changes in society place an even greater importance on school's work with ethics (cf. Hörnqvist & Lundgren, 1999). But while it is clear that ethics should play a key role in school, much research has found that the present state of ethics education is unsatisfactory (Lundgren, 1999; Thornberg, 2008), and there is a need to further the understanding of students' moral reasoning (Backman & Gardelli, 2015). And there is a lack of clear and widely accepted definitions of key concepts in the field of moral education (Sanger & Osguthorpe, 2005), and these ambiguities negatively impact both research and educational practice.

Throughout the thesis, a distinction between three approaches to ethics in school will be used (cf. Gardelli, 2011; Gardelli, Alerby, & Persson, 2014), and I will very briefly present it here so that the reader is aware of it from the beginning. The first approach will be called *the descriptive ethics approach*, and according to this approach to ethics in school, education should be concerned with teaching students facts about other people's moral beliefs and opinions. According to *the value transmission approach* to ethics in school, on the other hand, school should be concerned with making sure that students themselves come to accept and internalise some specific norms and moral opinions, chosen by the educational system. According to the *inquiry ethics approach* to ethics in school, thirdly, school should be concerned with equipping the students with skills and abilities to think for themselves about ethics and moral views and opinions.

In the 20th century, one of the most prominent topics of concern to technology education was that of whether to shift from traditional technology education, focusing on teaching intra-technological skills and knowledge (such as how a combustion engine works), to the so-called "Science-Technology-Society" (STS) approach to technology education, which has a broader focus to include societal issues related to technology, such as how different forms of transportation affect society and the environment. Among other things, the STS approach incorporates ethics into the Technology subject more clearly. While many have cheered the STS approach, it has found little implementation in the classroom (McGinnis & Simmons, 1999), and students' interest in technology education has been dropping in Sweden and several other similar countries, and it seems to drop lower the older students get, albeit

that students indeed report interest in typical STS topics of technology education (Jidesjö, 2012). Among the suggested reasons for the difficulties in implementing an STS approach in school has been that teachers perceive there to be difficulties relating to how to approach the not strictly intra-technological stuff of the STS approach, which includes ethics.

Parts of this thesis have been published as articles in journals and conference proceedings. More details on this are given in Appendix I.

Aim and research questions

The overall aim of the thesis is to explicate and further the understanding of three approaches to ethics in school – the descriptive ethics approach, the value transmission approach, and the inquiry ethics approach – and of (i) their role in the Swedish educational system, (ii) how they relate to students' moral reasoning, and (iii) what pedagogical merits they have.

The following general questions have guided the choice of methods for production and processing of empirical data:

Research question 1. How are the descriptive ethics approach, the value transmission approach, and the inquiry ethics approach to ethics in school prescribed by the Technology syllabus, the syllabi for all remaining subjects, and the general sections of the current national curriculum for the Swedish compulsory school?

Research question 2. How do students reason morally about technology choices and online behaviour, and what relations can be found within this reasoning?

The first research question targets (i), and is dealt with mainly in the first part of the results, and the beginning of the discussion. The second research question targets (ii), and is dealt with mainly in the second part of the results and the second to fourth parts of the discussion. Both of the research questions, together with the discussion, target (iii).

BACKGROUND

In this chapter, I will present prior research and reports of relevance to the present study, starting with research concerning ethics[1] in education, thereafter moving on to technology education. But before I delve into the different terminology regarding this field, I will support its relevance by briefly touching upon the question of whether ethics has anything to do with education at all. Norberg (2003) gives a quite clear and explicit answer to that question:

> Schooling is never neutral. Its purpose is to raise young people in accordance with different demands. These demands include knowledge and, as important, values. Teaching, like all forms of upbringing, includes ethics, moral, norms and values. These concepts are interpreted and handled differently in separate contexts and therefore they call for clarification. (Norberg, 2003, p. 1)

Alerby and Bergmark (2014, p. 152, my translation) point out another important reason for including ethics in school: "Our actions as humans are influenced by, amongst other things, our fundamental values […] This [entails] that ethical valuations are central to school practice and of importance for the educational system, seen as a fostering instance."[2] They also touch upon the relation to the curriculum, in stating that "the curriculum states that ethics should permeate all activities in the pedagogical practice" (Alerby & Bergmark, 2014, p. 153, my translation). Nonetheless, they perceive a risk that ethics is not sufficiently attended to in school, due to the heavy focus on measurement and subject knowledge.

Thornberg and Oguz (2013, p. 49) state that teaching "is a moral activity in which teachers have to consider the ethical complexity of teaching and the moral impact they have on their students." This is a view shared by many researchers and educators, upon which there is a strong consensus, as pointed out by e.g. Sanger (2008) and Sanger and Osguthorpe (2005).

It is commonly held that education itself is inherently, or by its nature, normative. As we shall see below, Hörnqvist and Lundgren (1999) seem to endorse this position, in claiming that fostering is part of every curriculum and that school cannot be value neutral. Cuypers (2012, p. 3) notes that "[e]ducation appears to be goal-directed" and that "we believe that

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[1] When using the words "ethical" and "moral" (in their different forms), I will use them as fairly synonymous. Both of them have an etymological meaning that is quite the same; they both mean something like "customs" – "ethics" coming from old Greek and "moral" from Latin (Backman, Gardelli, Gardelli, & Persson, 2012; Tännsjö, 2008). Sometimes, though, "ethics" is used to denote moral philosophy, the philosophical study of morality, but instead of such usage, I here mostly instead speak of "moral philosophy" (and the more specific "normative ethics," "metaethics," etc.) when I wish to denote philosophical studies of morality. Similarly, "ethics" is sometimes used to denote a system of morality. In this vein, "ethics" is more often used when one speaks about groups or in general terms, while "moral" is used when speaking of individuals. Thus, it sounds more natural to most people to state that something is in conflict with their moral views, while it would sound a bit too pretentious to say it conflicted with their ethics, while, on the other hand, it sounds more appropriate to speak of teacher ethics than teacher morals. In moral philosophy literature, it is quite common to use the two terms quite synonymously (Tännsjö, 2008), using whichever one of the words that sounds more reasonable in the specific context, oftentimes with the above taken into consideration, and I am in general ascribing to this practice. Taking all the above into consideration, it is actually not at all simple to use these words in a way that is both unambiguous and at the same time that meets normal language use and people's intuitions about their usage (cf. Backman et al., 2012). I hope that it is quite clear to the reader what is intended in different passages below.

[2] They use the Swedish word "förhållningssätt" that I translated into "attitude", and which can be translated as attitude, disposition, view, stance.

some goals are worthy of pursuit whereas others are not and that some goals are more worthy of pursuit than others." Hence, he claims, education is value-driven, or, using a different phrasing, it is normative. Norberg (2006, p. 189) clearly defends the view that education is normative, in opening the abstract of one of her papers by stating that "[t]eaching is a moral endeavour. It transmits moral messages based on values and expectations." She has defended this view elsewhere as well, for example claiming that "[s]chooling is always a moral practice" (Norberg 2003, p. 2) and that "[s]chooling has always been a tool for transferring values to future generations" (Norberg 2003, p. 2). Valli claims that "teaching is a moral as well as an analytic enterprise [and] educational decisions are inevitably based on beliefs, however tacit, about what is good or desirable" (Valli, 1990, p. 39). Sanger (2008, p. 169) sums this up, in noting that "[t]here is a strong consensus in the educational literature that teaching is an inherently moral endeavour, and that the moral work of teachers is of central importance to education."

The Swedish Government has stated that: "Ethical questions concern every human being. [In everyday school situations the] students face questions concerning good and evil, right and wrong" (Swedish Government, 1998:4, p. 44, my informal translation). The Swedish Education Act states that teaching is a "goal oriented process that under the leadership of teachers or pre-school teachers is aimed at development and learning through retrieval and development of knowledge and values" (2010:800 chapter 1 section 4, my informal translation) and that education is "the activity within which teaching that stems from predetermined goals takes place" (2010:800 chapter 1 section 3, my informal translation). It is evident that ethics is of great importance for the Swedish educational system, due to values being included in the definition of "teaching" and thereby also "education." Moreover, the creators of the curriculum state that they considered values to be even more primary and important than the knowledge aims[3] (Hörnqvist & Lundgren, 1999). It seems fairly safe to conclude that ethics is of great importance to education (cf. Gardelli et al., 2014), although I will later discuss, and reject, some objections to that view, but also some proposals in defence of that view.

Students of today are faced with a great deal of moral choices and problems, some yet to be appraised (Johnson, 2009), and probably still additional ones to emerge within the near future. (Indeed, since I first wrote that sentence a few years ago, to some extent this has already happened.) Many of these are related to technology and technological issues and problems, such as ethical aspects of using computers and information technology (Bynum, 2015), engineering ethics (Stovall, 2011) or a wide range of other technological topics (Frey & Wellman, 2003), some of which will be indicated below. The rapid change in the ethical landscape of technology is reflected in the fact that such fields of applied ethics as nanoethics (Johnson, 2009) and cyberethics (Fuchs, Bichler & Raffl, 2009) have only recently been identified and named. Indeed, ethics is of central importance to many fields of technology and engineering (cf. Erikshammar, Björnfot & Gardelli, 2010; Spier & Bird, 2014) There are,

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[3] Hörnqvist and Lundgren (1999) state that knowledge aims should be strived towards or attained, and thereby several methods can be used, as long as they are deemed efficient in leading to (or towards) the aim. But the values should "come first, but also always simultaneously", according to Hörnqvist and Lundgren (1999, p. 11), which seems to mean that they must always guide action and they must always be the starting point and always be respected.

then, numerous reasons for holding ethics to be of great importance not only to education in general but also for technology education in particular.

Ethics education and moral reasoning

In this section[4], I present and discuss some prior research on ethics and education in general, and some research concerning moral reasoning in particular.

Within the field of ethics and education, there are several topics of research and educational theory, such as *values education*, *moral education*, and *character education*. There are many proposed definitions of "values education." Some use it in a fairly narrow sense, as (more or less) straightforward transmission of certain predefined values (Veugelers, 2000), a practice that is often rather called "character education" (Thornberg, 2004), and which corresponds quite clearly with the value transmission approach to ethics in school. Others use the term "values education" more broadly to denote all activities in school relating to students' development connected to ethics and morality. In this vein, Johansson and Thornberg (2014a, p. 10, my translation), define "values education" as "that aspect of the pedagogical practice that results in moral or political values – as well as norms, dispositions and skills that are based upon such values – being mediated to or developed in children and youths," a definition Thornberg has also defended elsewhere (Thornberg, 2004, 2014). Farmer (1988), in a definition that is quite similar, (but, as I will argue differs in important ways) defines values education as "a pedagogical attempt to stimulate the student to develop the ability to reflect intelligently on and understand the role of values in human life, in both the student's own personal life and the life of human society in general" (Farmer, 1988, p. 69). Another influential definition is given by Taylor, who holds that "values education, in its various forms, encourages reflection on choices, exploration of opportunities and commitment to responsibilities, and, for the individual in society, to develop values, preferences and an orientation to guide attitudes and behaviour" (Taylor, 1994, p. 3). Presenting several of the above definitions, but not discussing whether or not they are compatible with each other, Johansson and Thornberg (2014b) note that it is common to treat "values education" as an umbrella term, covering such fields as character education, moral education, citizenship education and democratic education. In this vein, Thornberg and Oguz (2013, p. 49) note that "[a]ll kinds of activities in schools in which students learn or develop values and morality are often referred to as values education." Within this field exist, as is evident in the definitions above, such elements as the pedagogical aspirations to educate future citizens, to mediate central values upheld by current members of society,[5] to facilitate the learning of skills of higher order thinking about ethics, to teach children facts from social science about others' moral thinking, and other things as well. As I will show and discuss

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[4] Which includes some texts that originate from some earlier publications, namely "Coherentism as a Foundation for Ethical Dialog and Evaluation in School – Value communication, assessment and mediation" and "Six forms of variety in students' moral reasoning: an age-old distinction enabling new methods and findings" and "Why philosophical ethics in school: implications for education in technology and in general" (see Appendix I).

[5] Or at least cherished by policy makers and those with power to influence curriculum content, as some writers prone towards such thinking suggest (cf. Nash, 2004; Slattery, Krasny, & O'Malley, 2007).

below, these are different things, not necessarily compatible with each other, a problem rarely acknowledged.

Davis (2003) claims that character education is a proper subclass of moral education, and that character education is: "any attempt a school makes to improve a student's character, that is, to make more likely than otherwise that the student will do what she should" (Davis, 2003, p. 34), while there are forms of moral education that are not character education, since moral education "might consist of nothing more than familiarising students with a moral vocabulary or teaching them how to see moral issues in what they read" (Davis, 2003, p. 34), which would not be character education by his definition, since for there to "be character education, there must be an explicit claim to mold character" (Davis, 2003, p. 35).

In an effort to be inclusive, I presume, Colnerud and Thornberg define value education as

> (a) Pedagogical interventions, methods, activities or attitudes[6], that aims to stimulate, support or influence individuals or groups to construct, incorporate, understand, express[7], imitate, problematise or critically reflect upon values or norms.
> (b) Activities, interactions, situations, relations or processes that include any form of learning in relation to values and norms through groups' or individuals' construction, interpretation, reconstruction, incorporation, expression, transmission, problematisation, questioning of or critically reflecting upon values and norms in presence or absence of (a). (Colnerud & Thornberg, 2003, p. 18)

This definition is indeed very broad, and all of our approaches to ethics in school fall under it. But this also means that it might be impossible to simultaneously fulfil all of the parts of the definition. Since it is largely disjunctive, this does not mean that nothing can fall under it, though.

Terminology aside, Thornberg has, in several studies (Thornberg, 2008; Thornberg & Oguz, 2013), reported that "there is a lack of professional knowledge" (Thornberg & Oguz, 2013, p. 49) among teachers as regards what he calls "values education." Colnerud and Thornberg (2003), note that teachers perceive the value pedagogical task as being important, but they feel that they have not been sufficiently prepared to deal with it, and they do not think they have the time to deal with it.

Moral reasoning

One of the main research topics in relation to ethics and education is students' moral reasoning. Such studies are important for several reasons. For instance, students' moral reasoning has a lot to say about the educational system which they have been included in, and the work of their schools. In regard to character education (in its limited sense, as we shall see below) the study of students' moral reasoning is important since it might be taken as a good measure of their moral character, and hence have something to say about the character education, its shortcomings and successes. It is also important because, as we shall see, the

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[6] The authors use the word "förhållningssätt."

[7] The authors use the word "gestalta."

student's moral reasoning is one of the more direct things that education in ethics is supposed to have an effect upon.

Moral reasoning is fundamental to moral education, character education and education for democracy (Zarinpoush, Cooper, & Moylan 2000). Studying moral reasoning is important for understanding teaching and instruction in ethics (Bosco, Melchar, Beauvais, & Desplaces, 2010). A higher quality of moral reasoning has also been found to correlate with a lower tendency to delinquent behaviour in adolescents and to reduced criminal behaviour (Beerthuizen, Brugman, & Basinger, 2013; Palmer 2003; Raaijmakers, Engels, & Van Hoof, 2005). Educating to help students develop their moral reasoning is important in order to "promote mutually rewarding relationships" (Senland & Higgins–D'Alessandro, 2013, p. 209). Hence, knowledge of moral reasoning is one important component for building educational programmes that can help reduce future unwanted behaviour. It is commonplace that an ethics education programme attempts to cultivate moral reasoning in learners (Bouchard & Morris, 2012). Developing ethics education through a focus on the development of moral reasoning is used in such varying contexts as business education, nursing education, professional education, special needs education, college education, and preschool education (Bebeau, 2002; Chaparro, Kim, Fernández, & Malti, 2013; Mayhew & King, 2008; McLeod–Sordjan, 2014; Schmidt, McAdams, & Foster, 2009; Senland & Higgins–D'Alessandro, 2013). Studying students' moral reasoning is also used as a method for understanding a plethora of different educational matters, for assessing educational programmes, curricula, and the effects of different educational changes and interventions (e.g., Bosco et al., 2010; Hurtado, Mayhew, & Engberg, 2012; Mayhew & King, 2008). Hence, a good framework for understanding students' moral reasoning is important from a methodological point of view for a broad variety of future educational research (Backman & Gardelli, 2015).

One big strand of research on students' moral reasoning is concerned with the development over time of moral reasoning, a field where the works of Kohlberg (see e.g. Colby & Kohlberg, 1987) constitute a foundational piece. Another common type of research in this field, not demanding as longitudinal study setups as the former, focuses on increasing the understanding of several aspects of students' moral reasoning. It is quite common in such research to use moral dilemmas as a basis for students to reason about. Björklund (2000) draws a distinction between what he calls "serious" and "everyday" moral dilemmas, to be used in research. A *serious* moral dilemma is a dilemma where there are serious moral implications, where there is more at stake, and hence where there are greater reasons to think thoroughly about one's choices. An *everyday* moral dilemma is a dilemma with less serious moral implications, one that it is more likely that participants have faced themselves. Research has shown that the content of a moral dilemma or choice situation affects the reasoning used. Björklund (2000) suggests that a serious moral dilemma tends to invite more care-oriented thinking, while everyday dilemmas tend to invite the decision maker to use simple decision rules.

Interpersonal variety in students' moral reasoning and opinions has been of great concern to contemporary researchers in various fields (cf. Backman, 2016; Backman & Gardelli, 2015; Rique & Camino, 1997; Smetana, 2006). Much attention has been paid to varying intrapersonal moral positions over time, with one of the most influential contributions being

Kohlberg's theory of stage development (e.g. Kohlberg, 1981; 1984; Kohlberg, Levine, & Hewer, 1983). Besides criticism concerning a diminished care perspective[8] (Gilligan, 1982; Gilligan & Wiggins, 1988), Kohlberg's theory has been challenged through findings relating to intrapersonal contextual variety of moral judgement (Carpendale & Krebs, 1992). According to Öhman and Östman (2007), it is a common experience today that our moral judgements vary in time and place.[9] The alleged existence of such variations has a bearing on which of the three approaches to ethics in school, the descriptive ethics, the value transmission or the inquiry ethics approach, ought to be taken (Backman & Gardelli, 2015), as will be discussed further below (see "Varieties and the different approaches to ethics in school"). A typical idea in the extensive field of social–cognitive domain theory (Nucci & Turiel, 1978; Turiel, 1983) is that varieties in moral judgements can be explained by variations in context. In other words, differences in context are considered as accounting for both inter- and intrapersonal differences in judgements. Both internal circumstances, such as a person's different informational assumptions (Wainryb, 1991), and external circumstances, such as the person's involvement in an actual situation due to playing certain social roles and being in certain social relationships (Passini, 2014; Smetana, 2006), different characteristics of, and within, cultures (Wainryb, 2006), ethnicity, gender, or socio-economic background (Smetana, 2006), and whether the dilemma or situation that the research subject faces is one of personal, social conventional, or moral character (Nucci & Turiel, 1978; Turiel, 1983), have been proposed as explanatory factors.

Within the social–cognitive domain theory it is common to employ and defend the distinction between the personal, social conventional, and moral domain (Nucci & Turiel, 1978, Smetana, 1999), and this distinction bears resemblance to the age–old distinction within normative ethics between conventional normative judgements and moral judgements (e.g., Kant, 1988), which has been both extensively criticised (Foot, 1972) and defended in recent times (Southwood, 2011). Nonetheless, the three-part domain distinction has been crucial for the development of the research area, although its relevance has also been contested (Keefer, 2006). Another distinction, the distinction between criterion of rightness and decision methods, is at least as established in the field of normative ethics – it was understood by philosophers of the past such as Sidgwick (1907), and in more recent times developed by Bales (1971) and thereafter famously used by for example Hare (1981) and Parfit (1984) – as the above discussed distinction, but it has nonetheless rarely been used in empirical research. This thesis is an exception (together with our article, see (Backman & Gardelli, 2015)), since I have used this distinction in analysing the students' interviews in order to uncover dimensions of moral reasoning that have not previously been distinguished between in social-cognitive domain theory, as will be clearer below.

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[8] Kohlberg has indeed given arguments against this claim, for example clarifying that within the principle of justice, a kind of care perspective was included through a principle of benevolence to all people, which can be seen as a kind of care (cf. Kohlberg, Boyd & Levine, 1990).

[9] What implications that should be drawn from this are complex, though. It does not necessarily mean that there are no general, non-changing moral truths, for example. Such general truths might be of such a high generality and abstraction, that it might seem as if no general pattern can be discerned (cf. Hare, 1981), as with some versions of consequentialism, or it might simply be that we are making mistakes in our varying moral judgements.

There are plenty of studies indicating complexity and inconsistencies in students' reasoning about moral dilemmas (Smetana, 2006; Wainryb, 2006). In social-cognitive domain theory, a foundational idea is that the social world is complex because it is structured by different social expectations and rules that are enforced in diverse social situations, relationships and societal arrangements, and as such is also experienced as complex. This, in turn, has consequences for people's moral reasoning according to the social-cognitive domain theory (Smetana, 2006). For instance, Smetana (2006, p. 120) claims that "children's moral and social knowledge is constructed out of reciprocal individual-environment interactions," and argues that inconsistencies and variations in and between individuals are explainable in terms of aspects of such interactions. I will later contest such ideas.

There are, however, several previous research studies that exemplify common characteristics in students' moral reasoning about moral dilemmas and problems. When describing why they consider certain actions to be wrong or bad, students' commonly refer to the hurtful or unjust character of the actions and their negative effects on others' welfare or rights (Nucci, 2001; Wainryb, 2006; Turiel, 1998). Children as young as the preschool ages refer to similar consequences of actions, such as injury, loss or negative emotions, when describing why they consider so-called "moral transgressions" (Nucci & Turiel, 1978, p. 400) to be wrong.

In Sweden, studies on students' moral reasoning and actions have been conducted, reaching similar results. For instance, Johansson (1999) describes that children in preschool defend other peoples' well-being in action, and Aspengren (2002) found that students emphasise values such as justice, equality and solidarity. In a more recent study by the Swedish National Agency for Education (2010), Swedish students aged 14 show a strong support, in comparison with 27 other countries worldwide, for different societal groups' foundational and equal rights.

Closing in on Swedish studies on variation in students' moral reasoning, the Swedish National Agency for Education (2010) demonstrated context-dependent variation of 14-year-old students' moral positioning in regard to, for instance, parental education and migration background. Björklund (2000) used hypothetical moral dilemmas and amongst other things claimed that women were more prone to care thinking than men[10], and that time pressure produced a stronger tendency towards duty orientation, as opposed to consequentialist thinking, a finding consistent with the theoretical model suggested and defended by Hare (1981). Using small children's own stories as data, Pramling, Norlander and Archer (2001) in a study on the moral reasoning of children from Sweden, Hungary and China, found that they had negative attitudes towards unfairness (understood as letting the strongest decide).

Narrowing down further to Swedish students' moral reasoning about technology, the Swedish National Agency for Education (Lundgren & Söderberg, 1999) found that the students referred to the inviolability of life as an explicit value, and Dahlin (2010) found that the students considered consequences such as hurt and suffering problematic, both studies

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[10] The question of whether women are in fact more prone to care thinking than men, and if so, why, has been one main issues in relation to care thinking and research on moral reasoning in the past decades, one of the main sources of this being Gilligan´s (1982) seminal book, which has sparked much debate and subsequent research.

concerning students' reasoning about an actual biotechnical moral dilemma regarding effects of progress in biotechnical research. In both studies, the students underlined principles of informed consent or similar in their solutions to the dilemma (Lundgren & Söderberg, 1999; Dahlin, 2010). According to the Swedish National Agency for Education (Lundgren & Söderberg, 1999), more attention should be paid to Swedish students' reasoning about technological dilemmas. In the results section, I will present results about the reasoning on moral aspects of technology and technology use by students who participated in interviews, and in the discussion these will be related to the foundational value system of the Swedish educational system for the compulsory education as stated by the national curriculum. Moreover, in the discussion, the relation between the students' reasoning and the Swedish foundational value system is discussed in regard to the previously mentioned basic proposition in social-cognitive domain theory that children's moral knowledge is constructed out of reciprocal individual–environment interactions and that variations between individuals are explainable in terms of aspects of such interactions. To continue setting the scene, I will now outline the basic form and content of the value foundation of the national curriculum, as well as a larger picture of ethics education in Sweden.

Ethics education in Sweden

The Swedish Education Act (2010:800) states that all education should rest upon, and be in accordance with, a curriculum, currently the 2011 edition of the national curriculum for the Swedish compulsory school, known as Lgr11 (Swedish National Agency for Education, 2011a), which states the aims regarding students' development of both values and knowledge. Regarding students' development of values, the creators of the curriculum interpreted this as meaning that there should be a value foundation, as we will see in more detail below, a set of pre-defined values that all education should rest upon, be in accordance with, and transmit to the students (Lundgren, 1999). The fundamental values of the school in Sweden are described at the very beginning of the curriculum: "The inviolability of human life, individual freedom and integrity, the equal value of all people, equality between women and men, and solidarity with the weak and vulnerable are the values that the school should represent and impart" (Swedish National Agency for Education, 2011a, p. 9).

It is thus made clear that school ought to ascertain that students come to appreciate some certain values, where the inviolability of human life is one, and solidarity with the weak and vulnerable is another.[11] Against this background, Dahlin's (2010) findings on students' referring to the importance of the inviolability of human life should come as no surprise. Furthermore, the respect for the intrinsic value of each person and for human rights, aims in accordance with the findings by Swedish National Agency for Education (2010) reviewed above, are underlined in the following passage:

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[11] It is interesting to note that in the curriculum preceding the current one, there were two different types of goals for the school; goals to be attained and goals to strive towards, and the value foundation was considered part of the goals to strive towards, according to Kjellin, Månsson and Vestman (2009)

Education should impart and establish respect for human rights and the fundamental democratic values on which Swedish society is based. Each and everyone working in the school should also encourage respect for the intrinsic value of each person and the environment we all share. (Swedish National Agency for Education, 2011a, p. 9)

Another section of relevance for the present study, emphasising that no one should be discriminated against on the grounds of, for instance, functional impairment, is the following:

The school should promote understanding of other people and the ability to empathise. Concern for the well-being and development of the individual should permeate all school activity. No one should be subjected to discrimination on the grounds of gender, ethnic affiliation, religion or other belief system, transgender identity or its expression, sexual orientation, age or functional impairment or other degrading treatment. (Swedish National Agency for Education, 2011a, p. 9)

However, there are plenty of examples of both researchers' and teachers' experiences of the problematic relationship between theoretical and often abstract prescriptions in curricula and the realisation of such prescriptions in daily educational practice (Häger, Kamperin & Toivio, 1999; Norberg, 2004). In schools, it is sometimes taken for granted that there is a so-called "common" (Häger et al., 1999, p. 26) value foundation, a recurring theme also in the national curriculum for the compulsory school (Swedish National Agency for Education, 2011a). However, Norberg (2004) argues that an education for all citizens has to balance between contributing to the shared consensus and an increased ability to live with diversity.

The value foundation, as it is currently constituted in the national curriculum, first appeared in the curriculum of 1994. In its publication *Ständigt. Alltid!* ("Constantly. Always!"), The Swedish National Agency for Education (Lundgren, 1999), through its director-general Ulf Lundgren (who was also the chair of the committee responsible for the 1994 curriculum (läroplanskommittén)), discusses the reasoning behind the concept of "the value foundation" and the choices made in regard to values in the 1994 curriculum. In a chapter cowritten by Hörnqvist and Lundgren, it is stated that:

It was necessary to speak of values as values, inalienable values, explicate which values they were, what role they should play in a curriculum and why, and what attitude and stance one should have towards them. It was these discussions that forged the concept we chose to call value foundation – it was those values that should constitute a foundation for the activities and work in school. (Hörnqvist & Lundgren, 1999, p. 8, my translation)

And inalienable values are defined as follows:

Inalienable values are those values that in a given culture circle hold under all circumstances. They make up the collective moral backdrop of the citizens, and really need no justification through goal oriented arguments. Nobody can, with reference to changing demands in the working life or new findings about the learning results of education, claim that one or the other foundational values has been put out of play. Values are in force regardless of whether they in particular cases

can seem impractical, unprofitable or lack utility.[12] (Hörnqvist & Lundgren, 1999, pp. 10-11, my translation)

As early as in the foreword, written by Lundgren, it is stated that "An important task for [the school] is to lay the foundation for and firmly establish the values that our societal life rests upon. The foundational values should have an actively influential role for all parts of the curriculum" (Lundgren, 1999, p. 1, my translation). Lundgren continues by explicating what seems to be one of the reasons for why the committee chose to treat the value foundation in the way that they did: "In our increasingly pluralistic society it appears as even more essential that these values also have an impact on school's everyday practice" (Lundgren, 1999, p. 1, my translation). It seems that the committee perceived a change in society toward more pluralism, and they responded by emphasising the value foundation. Hörnqvist and Lundgren (1999, p. 14, my translation) return to this point later on in the text, in what they themselves call an attempt to "evaluate the consequences of the fact that an explicit value foundation was formulated in the curriculum," and state that: "It stands out in the light of a series of changes and events in society and an increased pluralism as even more essential that values are established and legitimated in a curriculum, values that can constitute a foundation for school's activities and operations" (Hörnqvist & Lundgren, 1999, p. 14, my translation). This interpretation is justified by a historical perspective given by Lifmark (2010), who states that

> in 1978, then current minister of education initiated the so called "Norm committee." Its publication, *Skolan skall fostra [School should foster]*, was to determine […] the next curriculum, lgr80 [, through] its way of describing how the fact that the immigrants who had come to Sweden had changed the conditions for education. [… If] conflicts [of value] were to arise, the prevailing ideals in Sweden should be in force in education. […] That the value foundation is given such a prominent role in the 1994 curriculum should be understood based on […] a more multicultural Swedish society […] The idea that the plurality meant that schools should devote more time to fostering, rather than less, was central to the Norm committee in 1979. According to Linde, the current value foundation means that the Government points out that the freedom [of thought and values] is not unlimited. (Lifmark, 2010, pp. 13-14)

Similar ideas are yet again surfacing in the political discourse concerning future educational policy, after having been taboo for a while (cf. Dagens Nyheter 2016-07-07).

Indeed, research has linked increasing support for character education, especially the idea that there ought to be some predefined values which school should aim at transmitting to the students (with which the above ideas seem to correspond), with the loss of a common culture, insecurity about the future and a widespread perception of a moral decline in society (Winton, 2008). I will return to these points in the discussion, criticising some of the reasoning underlying the value foundation. Criticism of the value foundation and the reasoning underlying it has been given before. For example, in their report for The Swedish National Agency for Education, Colnerud and Thornberg note right in the introduction that

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[12] In Swedish, the phrasing is the following: "Oförytterliga värden är de som i en given kulturkrets gäller under alla omständigheter. De utgör medborgarnas samfällda moraliska fond som egentligen inte behöver motiveras med målrationella argument. Ingen kan med hänvisning till arbetslivets förändrade krav eller till nya rön om undervisningens inlärningsresultat hävda att nu har det ena eller andra oförytterliga värdet satts ur spel. Värden är i kraft oavsett om de i enskilda fall kan te sig opraktiska, oekonomiska eller onyttiga" (Lundgren, 1999, pp. 10-11).

"[t]he speech of a common value foundation with a group of inalienable values [becomes] problematic if we take into consideration the norm- and value pluralism and the norm- and value conflicts that exist in a pluralistic society" (Colnerud & Thornberg, 2003, p. 17, my translation). That is, they conceive the existence of value pluralism (in a certain context) to make the very idea of a value foundation problematic. They continue: "Whose value foundation is to be prioritised at whose expense?" (Colnerud & Thornberg, 2003, p. 17, my translation) And they conclude by stating that they want to

> show that while we in Sweden gullibly incorporated the notion of a value foundation there has, in other countries, been a lively discussion about the [alleged] existence of the common values, their extent and justification in relation to a confused or relativistic approach. (Colnerud & Thornberg, 2003, p. 26, my translation)

The background to the committee and the new curriculum was a directive from the Swedish parliament, which stated that the new curriculum should have "clear and assessable goals" (Lundgren, 1999, p. 8, my translation). Hörnqvist and Lundgren state that this presupposes that "there is a professional perspective upon which values the education should rest and take responsibility for" (Lundgren, 1999, p. 8, my translation), that this all comes down to the question of what constitutes formation (or *bildung*)[13] in our time, and present what is considered the classical concept of formation, or the Enlightenment concept of formation, as stemming from Kant's idea of Enlightenment, where the notion of being able to think for oneself without the guidance of someone else is paramount. Hörnqvist and Lundgren conclude that "Sapere aude! Have the courage to use your own reason! Is thus the motto of Enlightenment" (Hörnqvist & Lundgren, 1999, p. 9, my translation). From this reasoning, the conclusion that values are "foundational points of departure and something that shall always influence one's actions" (Lundgren, 1999, p. 11, my translation) is somehow drawn. It is thereafter stated that school is not, and can never be, value neutral, that everything in school must depend on the inalienable values of the value foundation, and that this means that these values can never be negotiated away. It is quite obvious that values are thought by the creators of the curriculum to be very important in the educational system. Maybe the most important, since they are described as what keeps the curriculum together and the bridge between the law and the rest of the curriculum, and that the values should always come first: "The fundamental idea behind the committee's curriculum proposal […] was a curriculum that is moral and thereby grounded in specific values" (Hörnqvist & Lundgren, 1999, p. 11, my translation). And it is meant that the value foundation applies to all of the curriculum and all of the school practice. And the committee seems to have been of the opinion that it *has* to be this way, in stating that "[a]ll education means fostering in some sense" (Hörnqvist & Lundgren, 1999, p. 12, my translation) and that "[k]nowledge and

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[13] "Bildning" in Swedish - a Swedish word that is hard to translate into English (Moulakis, 2011), but which is related to the German word "bildung" (Svenska Akademien, 2016). Sometimes English sources use the word "bildung," often defined as something along the lines of education in and through culture or cultural formation and education (cf. Moulakis, 2011), while "formation" seems to be the most fitting word of the English language. Oftentimes, the concept of "bildning" has connections to Enlightenment, or other classical, ideas. And the title that was chosen for the main publication from the committee was "Skola för bildning." Hence, this obviously was taken to be of great worth for the committee.

fostering are two essential concepts of each curriculum. [… F]ostering can be said to be to transmit foundational values, rules and competence to act. A curriculum specifies what knowledge and which fostering education should provide and develop" (Hörnqvist & Lundgren, 1999, p. 12, my translation), the latter itself being a quote from the final publication of the committee.

In a report by the Swedish National Agency for Education (Lundgren & Söderberg, 1999) showing how the national curriculum was in fact practiced in schools around the country, one sub-study investigated students' abilities to make deliberate ethical choices and their "taking of moral stands" (Lundgren & Söderberg, 1999, p. 64). One of the conclusions is that "factors such as gender, social class, etc. have a greater impact on moral development than school factors" (Lundgren & Söderberg, 1999, p. 8, my translation). One possible interpretation of the latter proposition is that school does not have a big impact on students' ethical skills. This is further corroborated by the report's finding that "Schools seems to lack tools for working with value foundational and democracy issues" (Lundgren & Söderberg, 1999, p. 10, my translation). The study also shares the view that the schools are weak in their effort to help students in their moral development, and it also notes that school may not work with ethics very much at all (Lundgren & Söderberg, 1999). Similarly, Holmqvist, in a report for The Swedish National Agency for Education, states that "few schools work extensively with promoting good online ethics" (Holmqvist, 2009, p. 3, my translation). She found that only one out of six teachers in compulsory school and upper secondary school teaches "Internet ethics" and works to prevent cyberbullying or other online abuse, harassment or violation of rights. Wyndhamn found that "these values [the values of the value foundation] are cited primarily when school managers and/or teachers have found pupils to deviate in their behaviour from what is expected or 'normal'" (Wyndhamn, 2013, p. 216). The Swedish National Agency for Education (2000) also notes that some factors that hinders schools work with ethics are that teachers feel that they lack knowledge and competence needed, that there is too little time for talking with the students about value matters, that in the later years of school, the focus on specific courses and specific factual knowledge that needs to be taught make it difficult to deal with ethics, and that school needs to focus on problems that needs to be addressed immediately which leads to a focus on symptoms instead of the deeper causes of the problems. And we will see further examples of research and reports showing that ethics is marginalised in schools' work. Moreover, Lundgren and Söderberg further state that their study "points out shortcomings in critical thinking in relation to questioning and assessing information" (Lundgren & Söderberg, 1999, pp. 9–10, my translation), skills that are of utmost importance for some aspects of ethics in school (Hare, 1995), as we will see below. All the above findings clearly and strongly suggest that there is a need for more knowledge about ethics in school, how the teachers could and should work with these matters in school, and what explanations can be given for why schools fail to address these important issues. In the conclusions of the report, these matters are summed up:

> The survey questions given to both the students and the teachers regarding how school has in fact worked with [ethics] in school depict a generally disappointing picture. In any case the schools seem not to have succeeded particularly well in developing the general abilities that such

a content can be assumed to stimulate, i.e. raising questions, reflecting and suspending judgement. (Lundgren & Söderberg, 1999, p. 74, my translation)

The background for the study was that the "curriculum should govern education and contains binding prescriptions for its operations" (Lundgren & Söderberg, 1999, p. 11, my translation). A study of the curriculum, as will be done in the present study, and the way in which actual school practice compares to the curriculum, as will be indirectly touched upon, is therefore of great importance. These matters will also be discussed in the concluding remarks (see "Future research").

In one of the sub-studies, "School from within," questions arise regarding whether school in fact promotes the development of democratic attitudes, and it is concluded that "[i]n one way the school seems to have some significance, though, and that is schools that create an atmosphere where it is possible to express one's thoughts and emotions concerning social and moral questions" (Lundgren & Söderberg, 1999, p. 27, my translation). These are hallmarks of an inquiry ethics approach. Moreover, the study notes that "[s]chool has, in addition to the by tradition given role of laying the foundation for conventional morals in the students, also an important task in developing the students' ability to reflect upon morality" (Lundgren & Söderberg, 1999, p. 27, my translation). Again, they touch upon the differences between the value transmission and the inquiry ethics approaches, but seem not to be explicitly aware of the distinction, and even less aware of the potential conflict between these approaches. Moreover, later in the presentation, the authors go even further, seemingly claiming that the latter is the more important of the two:

> The most important contribution of the school ought then to be to give the students access to language and thereby possibilities and stimulation to think, i.e. a development of the moral compass. It is, however, not the task of the school to force particular views upon the students. (Lundgren & Söderberg, 1999, p. 72, my translation)

As I will show later, there is a troubling tension between perspectives here. This mixture of a value transmission approach and an inquiry ethics approach to ethics in school is quite common in the research literature. In other reports, The Swedish National Agency for Education, (e.g. 2000) has claimed such things as that the "Dialogue [is] a fundamental requirement" (Swedish National Agency for Education, 2000) for school's work with the value foundation, which might turn out to be a self-contradiction. In the Theoretical Framework and Discussion sections, I will return to these matters.

Lundgren and Söderberg also found a problem regarding that they perceived many students as defending what they call "private morality[14] – i.e. that the moral decisions of the individual are her private business" (Lundgren & Söderberg, 1999, p. 70, my translation). Students seem to be of the opinion that "[one] makes the choices one does because one perceives them to be correct, end of story. And that nobody can prescribe how someone else should act" (Lundgren & Söderberg, 1999, p. 70, my translation). The authors of the study clearly take the standpoint that this is something problematic, since they claim that "[s]chools

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[14] For clarity, it should be noted that "private morality" here does not mean the same as "the personal domain," as understood within the social-cognitive domain theory.

should discuss [… certain ethical matters], to counteract the view that ethics is a private thing that concerns nobody else than oneself" (Lundgren & Söderberg, 1999, pp. 70-71, my translation). It is concluded that this "leads to a discussion about moral competence and moral attitudes that end up in the question of whether schools perhaps are more eager to foster students to correct attitudes rather than to develop 'competence' in the moral domain (something that includes more than cognitive components)" (Lundgren & Söderberg, 1999, p. 71, my translation). This will be taken up later, in relation to dialogic education and the results of this thesis. Finally, the authors also claim that the "most important conclusion is that the value foundation is present in most students after all, but not as rational arguments, but as feelings" (Lundgren & Söderberg, 1999, p. 71). As we shall see below, the results of this thesis question that assumption.

Franke (1999) in her contribution to the anthology *Ständigt. Alltid!* (Lundgren, 1999), also seems to reject Lundgren and Söderberg's above-mentioned view, but in another way and for another reason than my results will lead to. Franke claims that the problem of values in school is not one of theory[15], but of bridging theory and practice:

> The problem is not that equality […] is not recognised as a universal value. [It] is also not that solidarity […] is not a principle that everyone avows. [Neither is the] respect for those of different opinions […] denied […]. No, the problem is that we have not found ways to convince everyone to, in practice, live up to the fundamental principles that our society is built upon. There is a gap between what should be valid in theory[16] and what is done in practice. (Franke, 1999, p. 25, my translation)

She also claims that the natural rights and liberties are in theory undisputed.[17] So her view is the opposite of that discussed above – she seems to believe that everyone agrees in theory to the so-called *shared fundamental values*, but that we fail to implement this in practical action. This view also, in an interesting way, connects to the distinction between the three approaches to ethics in school. It is interesting to ask if this assumption would make a good base for the inclusion of more (and more successful) value transmission in education, or, since everyone already upholds the values in theory (in her view), value transmission would be unnecessary, to be replaced instead by practical judgement or the practice of taking action. For now, however, I settle with having briefly described the role and content of the value foundation, and some previously acknowledged problems about setting Swedish moral

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[15] Interestingly, the title of her chapter is "Vår värderingsbas – i retorik och i praktik", which means "Our value foundation – in rhetoric and practice", the interesting part being that she calls it rhetoric, not theory, maybe hinting that the theoretical dimension of this is one of rhetoric, not more substantial than that.

[16] The Swedish wording is "vad som *skall* gälla i teorin" (my italics), which could be understood in two different ways; (i) what is supposed (by society at large) to be accepted in theory, and (ii) what is theoretically sound. The second is a more realist understanding of the sentence (understood simply as what is really theoretically correct), while the former could be understood in a more relativist sense, as in what it is commonly held that one should (ought to) theoretically adhere to, something like that which it is politically correct to in theory (rhetorically?) hold to be valid or that which is the societal norm. I am not sure which one of these meanings is intended.

[17] But this seems to fly in the face of the large amount of disagreement that constitutes ethical theory. Believers in a strong liberalism would disagree with many of the rights which are often included in such a set of rights and freedoms (since they are positive rights), while others would disagree with some of the liberties or freedoms, and others, e.g. many consequentialists, would not like the idea of rights at all (cf. Bentham's famous claim that rights are nonsense, natural rights are nonsense on stilts), and so on.

education into practice and reaching the goals of the curriculum, and instead continue by distinguishing more closely between some different forms of (ethics) education.

Monologic and dialogic education

The distinction that shall here be taken into consideration is that between monologic (also known as teacher-centric, or traditional) education (or teaching), on the one hand, and dialogic education (or dialogic teaching), on the other. In the introduction I have already briefly described the three-part distinction between different approaches to ethics in school (the descriptive ethics approach, the value transmission approach and the inquiry ethics approach, respectively). I will more thoroughly flesh them out in the theoretical background below (see "Three approaches to ethics in school"), but it can be noted already here (although it will again be taken up in the discussion section), that I have mainly characterised these approaches by what pedagogical aim they have; by their answer to the questions of what the students should learn, and what the consequences of the education should be for the students. But it is also important to investigate how the approaches differ (if they do) in regard to what pedagogical methods would be most appropriate to utilise in relation to each approach, and thereby how they relate to a bigger didactical and education theoretical framework. Such an undertaking will facilitate an understanding of the approaches, their merits, and their relation to the rest of the educational system as well as the opportunities and obstacles they have for successful implementation in a wider educational setting. I will in this section outline one such dimension of pedagogical theory, and in later investigate how this corresponds to our three approaches to ethics in school (see "On the compatibility of the approaches"). I will now first present some studies about the amount of monologic and dialogic education that is taking place in schools, and then present studies about some of the benefits of dialogic education contrary to monologic education, and finally discuss the connection between dialogic education and critical thinking.

Reznitskaya et al. (2012) claim that while there are many critics of the traditional model of classroom talk (e.g. Alexander, 2008), such monologic teaching is still dominant in school, with teacher instruction as the main didactical tool. However, "[d]ialogue, as a communication form consistent with the pluralistic ideals of a democratic society, has long been embraced by educators concerned with empowering their students to become independent thinkers and active citizens" (Reznistkaya et al., 2009, p. 29). For example, Dewey (e.g. 1916), Vygotsky (e.g. 1968) and Lipman (e.g. Lipman, Sharp, & Oscanyan, 1980) are seen as early proponents of the dialogue as a pedagogical foundation (Reznistkaya et al., 2009).

While the term "dialogic education" is used in slightly different meanings, some similarities and shared features can be found in many versions by several different educational theorists and researchers (Reznitskaya et al., 2012). Dialogic teaching is characterised by a non-traditional distribution of power, where all participants (students and teachers) "meet on terms of equality" (Reznitskaya et al., 2012, p. 288) and teachers "treat students as potential sources of knowledge and opinion, and in so doing complicate expert-novice hierarchies" (Nystrand et al., 2003, p. 140). Dialogic classrooms also prominently feature

authentic, open questions, to which the teacher often does not have a ready-made answer (Alexander, 2008), and that "serve to inspire meaningful inquiry into new understandings" (Reznitskaya et al., 2012, p. 288) and also help support the egalitarian character of the discussion. Moreover, such dialogic classrooms often feature meta-level talk and reflection, where participants examine the process and outcomes of the dialogue, in order to further the quality of it (Lipman et al., 1980).

Alexander describes dialogic teaching in the following way:

> [D]ialogic teaching harnesses the power of talk to stimulate and extend students' thinking and advance their learning and understanding. It helps the teacher more precisely to diagnose students' needs, frame their learning tasks and assess their progress. It empowers the student for lifelong learning and active citizenship. Dialogic teaching is not just any talk. It is as distinct from the question-answer and listen-tell routines of traditional teaching as it is from the casual conversation of informal discussion. (Alexander, 2016)

Accordingly, he claims that the following requirements are needed for dialogic teaching:

> interactions which encourage students to think, and to think in different ways; questions which invite much more than simple recall; answers which are justified, followed up and built upon rather than merely received; feedback which informs and leads thinking forward as well as encourages; contributions which are extended rather than fragmented; exchanges which chain together into coherent and deepening lines of enquiry; discussion and argumentation which probe and challenge rather than unquestioningly accept; professional engagement with subject matter which liberates classroom discourse from the safe and conventional; classroom organisation, climate and relationships which make all this possible. (Alexander, 2016)

But while dialogic education focuses on an open dialogue, which invites and encourages students to think and reason, monologic teaching is characterised by another communication pattern, that of recitation (Alexander, 2008), with "closed teacher questions, brief recall answers and minimal feedback that requires children to report someone else's thinking rather than to think for themselves, and to be judged on their accuracy or compliance in doing so" (Alexander, 2008, p. 93). Nystrand et al (1997, p. 6) states that "[w]hen recitation starts, remembering and guessing supplant thinking." This form of communication, typical for monologic teaching, is often known as "IRF," which stands for "Initiation–Response–Feedback" (e.g. Alexander, 2008).

Some claim, as we shall see some more examples of below, that the demands from the proponents of dialogic education are quite strong demands to put on the school and the teachers, while others respond that many of those requirements ought to be met by any good pedagogy. Thus, it has been claimed, for example by Carnell and Lodge (2002) that thoughtful dialogue is necessary for promoting rich learning environments. Similarly, the Swedish National Agency for Education (2000, p. 14) has called dialogue "a fundamental prerequisite" for working with values, and that it is central for working with democracy education. The Swedish National Agency for Education (2011b, 57) has also written that "Dialogues and [good] relations is also a foundation for the open classroom climate that is a fundamental prerequisite for a good learning environment." While it might be true that a good dialogue is

necessary for a good pedagogy, it is in fact quite rare that these requirements are met in classrooms around the globe. (Thus, those who claim that these features are features of any good education, have to settle with also holding onto the idea that there are actually only quite few examples of good education out there.) For example, Reznitskaya et al. (2012) compared the interactions of teachers in regular classrooms (REG) with classrooms working actively with philosophical dialogues (according to the P4C model (cf. Lipman, 2003; Lipman et al., 1980), which is one form of dialogic teaching), and found that:

> There were instances in the REG classrooms where teachers and students engaged in a meaningful dialogue about important topics inspired by the day's reading. Unfortunately, such "dialogic spells" or short-lived "shifts from monologic to dialogic discourse" […] were rare and inconsistent. Although there was some variability in the pedagogical approaches of REG teachers, our findings support the presence of important and systematic differences in P4C vs. REG classrooms, suggesting that the majority of interactions in REG classrooms tended toward the monologic [while the P4C classrooms did not]. (Reznitskaya et al., 2012, p. 299)

They found that in regular classrooms, when discussing texts that the students had read, teachers tended to do most of the speaking, quizzing students and asking them to give simple statements about basic factual matters from the text, of the sort "Who went where?" "What did he do there?" and so on. As opposed to this, in classrooms where teachers had specialised training in dialogic teaching, the students did most of the talking, the teachers asked no assessment–type–questions, but instead asked clarification questions (something the regular teachers almost never did), which helped facilitate the dialogue.

Also other studies have shown that it is very unusual that teachers in ordinary classrooms use genuine, open questions, to which it is unclear what the correct answer might be (Alexander, 2008; Topping & Trickey, 2007b). Instead, teachers mostly ask questions that they have the correct answer to (or at least think they do), and students are supposed to produce the answer anticipated by the teacher (Murris, 2014; Topping & Trickey, 2007b). And it is also uncommon that students get to ask questions themselves, even though this is an effective way of making sure that the education is relevant and stimulating to them. Dillon (1988, 1990) found that in a one hour class, the teacher asked 84 questions, and the whole student group together only asked two questions.

The above examples of findings are in accordance with what has been consistently found over the past decades (Reznitskaya et al., 2009), and, in fact, studies showing that recitation (as opposed to e.g. dialogue) is the main method for classroom discourse, and it has been this way

since at least the 1910s (Nystrand et al., 2003).[18] In recent years, several studies have also had such results, showing that this picture has, at least not yet, changed (Topping & Trickey, 2007b). For example, Nystrand et al. (2003), in a study involving over 870 classroom observations, found that most teaching is monologic, that more than 90% of all lessons contained no quality discussion at all, that most questions in class were "closed," non-authentic questions aimed at checking if the students knew the answers the teachers were looking for, instead of open-ended, genuine questions inviting the students to provide an answer of their own, or questions from the students themselves. They also found that those teachers that did in fact ask open-ended question and invited and encouraged students to ask questions of their own, created a climate that made it many times more likely that a discussion would arise. Similarly, Nystrand (1997), in a large study involving more than 400 studied classes in years eight and nine, found that dialogue (genuine, true discussion) averaged about 50 seconds per class hour in eighth grade, and less than fifteen seconds in ninth grade classrooms.

In a Swedish study of teacher students, Kjellin, Månsson and Vestman (2009) found that a quite large amount of the teachers-in-waiting were willing to engage in a dialogic discussion about values with their students, but that after practicing it, less of them were willing to do so, which meant that something in their teacher practice experience made them reluctant to use dialogic teaching methods. In their discussion of this, the authors conclude that this tendency might be due to lack of training in the teacher education programmes. But unless that changes, the results suggest that when the teacher-students become teachers, and become exposed to the "classroom reality," their tendencies to use dialogic teaching might reduce even more, which would be in accordance with what has been reported in the studies presented above. These conclusions may be further strengthened by findings from previous studies that staff working in schools and preschools that were not educated teachers were in fact more likely to promote dialogue than were those who were trained teachers (Trickey & Topping, 2004).

Norberg discusses a further possible explanation to the lack of implementation of dialogic teaching methods, noting that dialogue "is a challenge for teachers in a context where people believe in different social conventions," (Norberg, 2004, p. 21) and that other obstacles are "time, and, as important[ly], a fear of different values which challenge a sense of collegial

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[18] For example, even as far back as 1919, Colvin, in describing what he considered to be the most common errors that teacher-students and newly educated teachers make, realised the trouble many had with asking genuine questions: "Quite frequently the young teacher when urged to conduct his instruction largely in the form of question and answer rests content in asking numerous trivial questions or questions that are purely informational or formal, he finds it extremely difficult to frame queries that provoke thought on the part of the class as a whole or on the part of the individuals who chance to be reciting. Sometimes the questions are purely of the 'yes-or-no' type. At their worst these require no mental reaction whatsoever; at their best they are merely incentives to guessing, with a fifty per cent probability of a correct reply. Such questions are for the most part brief, and in some recitations are asked literally by the hundreds" (Colvin, 1919, p. 267-268). In studying a large number of questions asked by teachers, he randomly sampled 500 questions, and of these, about 5% were considered genuine thought questions. More than 25% required nothing more than a yes/no-answer, and more than 75% were quizzical. About 20% were judged to be so suggestive in their phrasing that they actually were not questions, but propositions in (a bad) disguise. The majority of the answers given by students were less than four words long, suggesting "that the recitation lacked poise and valuable mental reaction" (Colvin, 1919, p. 269). He then concludes by stating that the "nature of the questions asked during the recitation and the manner in which they are asked is, to my mind, the most vital part of the teaching" (Colvin, 1919, p. 269). Since he already perceived these problems a hundred years ago, it is quite sad that the situation has been found to still be quite identical today – as we shall see below, there are many drawbacks to education of this sort.

consensus" (Norberg, 2004, p. 21). This fear of value conflicts coming out into the open is also discussed by Arneback (2014), who notes that while dialogues are sometimes risk-filled, especially those concerning difficult topics, they are also opportunities to really make a change and an opportunity for education to really matter. And, as I have noted elsewhere (Strömberg, Gardelli, Backman, & Gardelli, 2012), if the value conflicts do not surface in the classroom, it does not mean that they do not exist – but where do they show then, and what consequences might this have? It might be better then, if these value conflicts surface in the classroom, so that they can "be confronted with knowledge, open discussion and active measures" (National Agency for Education, 2011a, p. 9), as the national curriculum puts it.

On the other hand, Colnerud and Thornberg (2003, p. 215) note that there is a risk that the structure of the pedagogical situation and praxis, the way the classroom and education is set up, counteracts the moral efforts of the educational system, by, implicitly, teaching "subordination instead of independence and social hierarchies instead of equality" and that these are "some examples of the oppressive moral that can be transmitted tacitly in the pedagogical practice." Although the authors do not discuss this in relation to any of the approaches discussed here, it is quite obvious that this applies to monologic education, but not to dialogic education.

In building an understanding of dialogic teaching, some researchers draw upon theories by Bakhtin, especially his distinction between monologic and dialogic discourse (see e.g. Bakhtin, 1984; 1986), to highlight the differences between dialogic and monologic teaching (cf. Nystrand et al., 2003). Bakhtin claims that trying to make a clear-cut distinction between listener and speaker is an erroneous move that "produce[s] a completely distorted idea of the complex and multifaceted process of active speech communication," (Bakhtin, 1986, p. 68) and that:

> [t]he fact is that when the listener perceives and understands the meaning (the language meaning) of speech, he simultaneously takes an active, responsive attitude toward it. He either agrees or disagrees with it (completely or partially), augments it, applies it, prepares for its execution, and so on. […] Any understanding of live speech, a live utterance, is inherently responsive, although the degree of this activity varies extremely. Any understanding is imbued with response and necessarily elicits it in one form or another: the listener becomes the speaker. (Bakhtin, 1986, p. 68)

The response, in his view, does not have to be immediate, but can instead be a silent responsive understanding. Nonetheless, "[s]ooner or later what is heard and actively understood will find its response in the subsequent speech or behaviour of the listener" (Bakhtin, 1986, p. 68). His conclusions of this are that

> all real and integral understanding is actively responsive [… And] the speaker himself is oriented precisely toward such an actively responsive understanding. He does not expect passive understanding that, so to speak, only duplicates his own idea in someone else's mind. Rather, he expects response, agreement, sympathy, objection, execution, and so forth […] The desire to make one's speech understood is only an abstract aspect of the speaker's concrete and total speech plan. Moreover, any speaker is himself a respondent [… He is not] the first speaker, the one who disturbs the eternal silence of the universe. And he presupposes not only the existence of the

language system he is using, but also the existence of preceding utterances – his own and others’ – with which his given utterance enters into one kind of relation or another […] Any utterance is a link in a very complexly organized chain of other utterances. (Bakhtin, 1986, p. 69)

Hence, if we take these passages seriously, the consequence for education seems to be that rather than some education being monologic and some dialogic, it seems that in Bakhtin's view, all education would be dialogic (at least in some sense, or to some degree). This seems a bit problematic if his theories are to be used as a foundation for the distinction between dialogic and monologic teaching. Maybe it could be used to distinguish more from less dialogic teaching, and this, since all teaching would be dialogic in some sense, could be seen as an argument to make education as dialogical as possible (if one accepts the idea that a more fully developed dialogue would be better than less fully developed dialogue). But instead of further discussing that, we can note that Bakhtin seems to warn that, especially in pedagogical settings, there is a risk that true dialogue does not manifest itself, even when there are several speakers speaking, instead turning into what can be called a "nonproductive monologism" (Nystrand et al., 2003, p. 140):

> In an environment of philosophical monologism the genuine interaction of consciousnesses is impossible, and thus genuine dialogue is impossible as well. In essence idealism knows only a single mode of cognitive interaction among consciousnesses: someone who knows and possesses the truth instructs someone who is ignorant of it and in error; that is, it is the interaction of a teacher and a pupil, which, it follows, can be only a pedagogical dialogue.[19] (Bakhtin, 1984, p. 81)

Nystrand et al. (2003) state that Bakhtin considers such discourse as pathological, verging on communication disorder, and that it resists communication since it denies the same intellectual rights and responsibilities to other thinkers as it does to the monologic speaker her- and himself, and, in this, the speaker pretends to have the ultimate word. Dialogue, instead of claiming to have the "ready-made truth," is seen as a (joint) seeking of truth (Bakhtin, 1984). Hence, in order for a teaching situation to be truly dialogical, it is impossible that one part has the view that she or he has the correct answer and is supposed to, no matter what, make sure that the other part is thus instructed.

There are several different versions of dialogic education. One of the more developed, researched and widespread variants of dialogic education is the family of approaches called philosophy with children (Trickey & Topping, 2004), of which the Philosophy for Children (P4C) developed first and foremost by Lipman (Lipman, 2003; Lipman & Sharp, 1978; Lipman et al., 1980; Juuso, 2007) was the first one. Philosophical dialogues with children have been shown in research to have many pedagogical strengths and positive outcomes, and the interest in this pedagogical idea is growing (Haynes & Murris, 2011; UNESCO, 2009).[20] It has been shown that it succeeds in shaping a dialogic classroom, where teachers ask more

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[19] It seems as if calling such a communication "pedagogical dialogue" should be seen as an act of irony, suggesting that the educational setting is so deeply rooted in monological teaching that even dialogue is distorted to become monologue.

[20] It has, in recent years, also been noted by the Swedish National Agency for Education (2011b), where it is also noted that questions concerning the value foundation are "typical philosophical questions" (2011b, p. 70) and that "philosophical dialogs is a method that is particularly well suited for precisely those questions that the value foundation contains" (2011b, p. 9).

open-ended questions, students are more engaged and do a larger proportion of the talking in the classroom discussion, students show a larger engagement with other students' reasoning, take more responsibility for the discussion and ask more higher level questions, and so on (Reznitskaya et al., 2012; Topping & Trickey, 2007b). It has been found that they are a good means of helping students develop emotional and social skills, such as facilitating interpersonal relationships (Trickey & Topping, 2004), listening skills and confidence to speak (Gorard, Siddiqui, & See, 2015), as well as promoting gains in self-esteem (Gorard et al., 2015; Trickey & Topping, 2006) and self-confidence (Malmhester & Ohlsson, 1999). It has also been shown to develop several cognitive skills and abilities (Trickey & Topping, 2004), both verbal and non-verbal (Topping & Trickey, 2007a), including reading (Murris, 2014; Nystrand et al., 2003), maths and quantitative reasoning (Topping & Trickey, 2007a; Trickey & Topping, 2004), logical and critical thinking (García-Moriyón, Rebollo, & Colom, 2005; Topping & Trickey, 2007a; 2007b), reasoning, justification and argumentation (Malmhester & Ohlsson, 1999; Topping & Trickey, 2007b), and increasing intelligence, over what some theorists call several domains of intelligence, significantly large gains in overall measured cognitive abilities, and IQ (Barrow, 2010; Topping & Trickey, 2007a). It has also been shown to have positive effects upon creative thinking (Trickey & Topping, 2004), and positive impact on students' enjoyment and interest in key educational activities such as reading and discussion (Reznitskaya & Glina, 2013). Not surprisingly, it has been found that participation in philosophy with children positively increases academic achievement (Fisher, 2001; Gorard et al., 2015; Murris, 2014; Topping & Trickey, 2007a; 2007b), and such skills of importance for that as text comprehension (Alexander, 2008; Reznitskaya et al., 2012) and argumentative writing (Reznitskaya et al., 2012). In fact, it has been shown to have bigger impacts in cognitive development than pure cognitive development programs, at much lower costs, both in terms of time, money and effort, (Colom, García Moriyón, Magro, & Morilla, 2014) since implementing a philosophy for children approach is oftentimes quite low in cost (Colom et al., 2014; Gorard et al., 2015; Trickey & Topping, 2004; Topping & Trickey, 2007a). Moreover, it has been shown to be an effective means of preparing for democratic citizenship (Barrow, 2010). The way in which philosophical dialogs develop democratic skills, abilities, values and competences will be returned to below, in the discussion setting, but it is also noted in a report by the Swedish National Agency for Education on school's duty to educate democratic citizens:

> In a dialogue[21] different views and values can be contrasted with, and challenged against, each other. The dialogue includes a striving for the individual her- or himself to take a stance on ethical matters through listening, considering, seeking arguments and valuing, and at the same time the dialogue constitutes an important tool for developing understanding for one's own and others' views and opinions. A school that works to strengthen the relations – and use dialogues where everyone has the chance to participate – fulfils both the demand for democratic working forms and their opportunities to develop children's and youth's democratic competence. (Swedish National Agency for Education, 2000, p. 8)

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[21] They use the Swedish word "samtal" which can be translated as "conversation" or "dialogue." While we in Swedish also can use the term "dialog", I think that what they here are after is a dialogue.

Although brief, the above exposé of some empirical research shows a broad range of positive outcomes from participation in philosophical dialogs, across (seemingly) different fields – both cognitive gains, benefits in emotional and social attitudes and behaviour, and so on – and while philosophy for children is often discussed as a thinking skills programme, it differs from most thinking skills interventions in that it has such broad and far-reaching effects even outside of pure thinking skills (Topping & Trickey, 2007a; 2007b). In this vein, Lipman wrote that:

> A sufficient moral education program must insist upon the development of both cognitive and affective capacities without making the one superior to the other. Instead of conflicting, thought and feeling can be induced to reinforce one another. (Lipman et al., 1980, p. 175)

One central feature of philosophical dialogues with children is that the student does not act in isolation, (Nilsson, Gardelli, Backman, & Gardelli, 2015) but together with other participants in what is often called a "community of inquiry" (Lipman, 2003, p. 20), within which an active sharing of ideas occurs (Juuso, 2007). This collaborative element encourages the participants to ask questions of their own, formulate novel hypotheses, give reasons and argue for and against views and standpoints, and bring forward examples and counter-examples to different ideas together with the other participants; collectively taking the inquiry forward (Glina, 2009; Murris, 2008; 2014). It has been found that young persons who have participated in philosophical dialogues are more willing to listen to each other and to comment on what others say (Alexander, 2005), that they feel more comfortable together because they feel that their views will be respected (Alexander, 2005), and that they to a larger extent require arguments in order to adopt others' views and opinions (Malmhester & Ohlsson, 1999).[22] And it has also been shown that it contributes to a more safe and motivating learning environment (Murris, 2014), and it has been suggested that it can help counteract unwanted social behaviour such as bullying (Glina, 2009). It has been shown that participation in philosophical dialogs promotes prosocial behaviour, social skills and respect between peers (Colom et al., 2014; Trickey & Topping, 2004; Topping & Trickey, 2007b). For example, Topping and Trickey (2007b) found that participation in philosophical dialogues not only meant that the students to a larger extent were giving reasons for their own statements and judgements, but that they also started to give more reasons for their own responses to, and stances towards, the views and judgements of their peers, which can be seen as a sign that they were giving more respect to the peers and their views, and were taking the judgements of their peers more seriously. Colnerud and Thornberg (2003) in a survey of over 30 years of international research on value education, conclude that creating a community where all students are engaged, and where a discussion about value issues is being held, is among the most important features for creating a successful moral education, and that such a collaborative effort has positive effects on the students prosocial behaviour and attitudes. And extensive research has shown that respectful relationships have far reaching positive effects, among other things on student outcome (Decker, Dona & Christenson, 2007; Perdue, Manzeske, & Estell, 2009) and subjective well–being (Lindberg & Swanberg, 2006).

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[22] It should be noted that the study by Alexander (2005) was made on a "dialogic teaching" intervention in general, not specifically a philosophy for children methodology.

In contrast to what is the case in most conventional pedagogical enterprises, the primary role of the teacher (facilitator) in a philosophical dialogue is not to deliver fixed and ready-to-use answers to the questions under examination, but it is up to the participants in the community of inquiry themselves to collectively reason and work out answers and solutions to the problems and questions being investigated in the dialogue (Nilsson et al., 2015). The role of the facilitator is instead to motivate and encourage the participants in their own reasoning, to add structure and clarity to the conversation and through open-ended questions and suggestions encourage the participants to explore new perspectives and ways of thinking that can enrich the conversation and deepen the inquiry (Lipman et al., 1980). The role of the facilitating teacher is described in the following:

> In this sense, the teacher is a gadfly, encouraging the students to take the initiative, building on what they manage to formulate, helping them question underlying assumptions of what they arrive at, and suggesting ways of arriving at more comprehensive answers. (Lipman et al., 1980, p. 83)

An aim of Philosophy for Children, stated by Lipman et al. (1980), is closely connected to critical thinking. They write that the purpose is:

> to help [the students to] become more thoughtful, more reflective, more considerate, and more reasonable individuals. Children who have been helped to become more judicious not only have a better sense of when to act but also of when not to act. (Lipman et al., 1980, p. 15)

Accordingly, the participants are encouraged to explore new arguments, perspectives and alternative solutions to the problems discussed (Lipman, 2003). That participation in philosophical dialogues actually increases young persons' ability to think critically is supported by several studies, as we have seen. In research conducted in the UK and the USA researchers have had students participating in philosophical dialogues in a community of inquiry for some time, and then tested their skills within critical thinking, amongst other skills. In a meta-study scrutinising such research, the philosophising students were found to have displayed better or significantly better results in comparison to control groups in every study conducted (Trickey & Topping, 2004).

One benefit of dialogic education in general, as we have seen, is the development of critical thinking. Tsui considers higher cognitive thinking skills, for instance the skill of thinking critically, invaluable to students as future citizens, and claims that rather "than devote so much effort to teaching students what to think, perhaps we need to do more to teach them how to think" (Tsui, 2002, p. 740). Dewy also defends the importance of critical thinking, claims Burman in stating that "[i]n our schools, [Dewey] maintains, we should try to promote good judgement, as well as critical thinking, on the part of students" (Burman, 2008, p. 125). Agreeing with Tsui and Dewey on the importance of critical thinking, Bailin, Case, Coombs and Daniels (2010, p. 285) do not agree on its downplayed role in education, but instead claim that "[j]udging by the attention given to critical thinking in educational journals and in the official documents of governing agencies, support for teaching critical thinking at all levels of education is extremely strong in North America and the UK." But

educational policies and researcher attention on the one hand, and school practice, on the other hand, are different things.[23] Nonetheless, these topics are nothing new in the educational research literature. For example, Norris stated that critical thinking is an educational ideal, going as far as claiming that "critical thinking is an indispensable part of education, since being able to think critically is a necessary condition for being educated" (Norris, 1985, p. 40) while at the same time noting that critical thinking ability is not widespread, among either students or adults.

Defining critical thinking is not an easy task.[24] Tsui defines it as "students' abilities to identify issues and assumptions, recognise important relationships, make correct inferences, evaluate evidence or authority, and deduce conclusions," (Tsui, 2002, p. 743) a definition with elements borrowed from a typical researcher definition of the notion (cf. Ennis, 1996). Tsui states that her definition of critical thinking is less inclusive than that often used. For instance, Tsui's definition excludes the problem–solving ability, while that ability is sometimes included in the definition of critical thinking. The notion is differently defined by Kurfiss (1988) as "an investigation whose purpose is to explore a situation, phenomenon, question, or problem to arrive at a hypothesis or conclusion about it that integrates all available information and that can therefore be convincingly justified" (Kurfiss, 1988, p. 2). It should be noted that the notion of justification arrives at the end of the definition as a key concept. Similarly, Inch, Warnick and Endres (2006) claim that a "person who has thought critically about an issue will not settle for the apparent or obvious solution but will suspend judgement while seeking out all relevant arguments, facts, and reasons that promote good decision making" (Inch et al., 2006, p. 5). Here the notions of reason and argument are relevant concepts for the process of critical thinking. That is, both of these claims about critical thinking include, directly in the first case and indirectly in the second, the concept of justification. Similarly, Bealer (1999) states that there is a significant agreement that good evidence is required for critical understanding. And Frímannsson (2016, p. 5), in accordance with Siegel, states that "we should consider critical thinking to be the educational cognate of reason and rationality," thereby strongly connecting critical thinking to reason. He also presents six skills – interpretation, analysis, evaluation, inference, explanation and self-regulation – that have been suggested by a panel of experts as constituting critical thinking understood as "purposeful, self-regulatory judgement which results in interpretation, analysis, evaluation, and inference, as well as explanation of the evidential, conceptual, methodological, criteriological, or contextual considerations upon which that judgement is based" (Frímannsson, 2016, p. 5). Hence, although no consensus regarding the definition has been reached, evidence, reason(s) and arguments seem significant for critical thinking. Hence, there is a strong correlation between critical thinking and dialogic education in general, and e.g. a P4C approach in particular, since the skills and activities seen as constituting critical thinking are important in

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[23] Indeed, researcher attention and educational policies need not pull in the same direction either.

[24] Many different definitions of critical thinking have been proposed over the years, and there is no consensus on how to understand this notion. In a recent book, Ohlsson and Sigge (2014) make the proposal that it could be beneficial to start thinking in terms of "intellectual virtues" instead of "critical thinking," which is quite interesting, although it can be questioned how large a change such usage would contribute (cf. Backman, 2014). While I find their suggestion interesting, I will not take further notice of it in this context.

such dialogic education, and since research has found such education to positively influence the development of those skills and abilities to perform those abilities.

Technology education

In this section, I present and discuss some prior research on technology in education and technology education, in order to give a background to the present study. In research on technology education, many fields of study contribute and come together. For example, Dunkels (2007), in the introduction to her dissertation, states that she has used research from at least 16 different fields, including educational research, media studies, psychology, sociology, linguistics, cultural studies, medical science and philosophy. Although that is natural in a field like this, with this in mind, I have tried to limit the sources that were kept in the final versions of this text.

Traditional technology education and its critics

In this section, I will present a brief historical outline of a discussion about the aims and forms of technology education, and a shift that has been proposed, from traditional technology education, focused on educating future citizens, to a more modern approach, oftentimes known as the STS approach, which has a broader aim and focus.

Traditional technology education in theory and practice

Classically, technology education has been considered to be closely connected to science education and has practically been dealt with as such. It is very common to speak of science and technology (S&T) education (Vázquez-Alonso, Manassero-Mas & Acevedo-Diaz, 2006). This terminology still resounds through the research literature, although this close connection has recently been questioned. The aim of classical technology education has been considered to be to find, and educate, those students that were to become future scientists (and engineers), and prepare them for their future studies (and work) (Fensham & Harlen, 1999; Jidesjö, 2012; Vázquez-Alonso et al., 2006). Aikenhead (2006) calls this approach the pipeline approach. The content taught is typical content from within technology (Aikenhead & Ryan, 1992), typically consisting of the learning of specific technological vocabulary and of fundamental theories within science and technology, as well as some typical standard-examples of technological apparatuses, that have not changed very much over the decades, although technology in society changed rapidly in the 20th century. Contemporary research has suggested that this classical approach is associated with several quite dramatic problems of which I will spell out some below.

For instance, criticism has been raised claiming that science and technology education typically involves several grave errors which make students passive toward science and technology and their issues, and acquire very limited or false beliefs about science (Bencze, 2001; Durant, Evans & Thomas, 1989), rather than developing the critical and creative habits

of mind considered the hallmarks of science and technological advancements (Bencze, 2001). It is claimed that students leaving school, as well as most adults, show grossly distorted and idealised conceptions of the nature of science (Allchin, 2003; Hodson, 1998), believing that science is certain and unproblematic (Allchin, 2003; Lipman et al., 1980), since school science misuses laboratory work (Hodson, 1996), in using guided simulations and strictly prepared "pseudo-experiments" which convey the ideas that singular experiments can yield certain conclusions and that there is an algorithmic and trivial way of doing science: *the* scientific method (Wong & Hodson, 2009). This is considered to be contrary to the real spirit of scientific work (Hodson, 1996; Lipman et al., 1980). Another criticism is that historical scientific achievements and findings are described in false ways, where some scientists are portrayed as superheroes without any flaws, working by themselves, never in error, and producing revolutionary findings, and the achievements are idealised and described as monumental, all for the sake of a good narrative and interesting story-telling (Allchin, 2003). All this leads to, the criticism goes, students being unable to engage in real scientific work and activities, which would include such elements as they themselves asking questions, posing problems and devising ways of answering these, and then justifying their conclusions (Bencze, 2001; Hodson, 1998).

Studies from several countries around the world give a similar picture: both students and adults lack important abilities and have limited understanding of science and scientific matters (Fensham & Harlen, 1999; Mackay, 1971; Vázquez-Alonso, Garcia-Carmona, Manassero-Mas & Benassar-Roig, 2014). Several studies also show that students are uninterested in science and technology in school (Aikenhead, 2006; Kozoll & Osborne, 2004; Kennedy, Lyons, & Quinn, 2014; Jidesjö, 2012).[25] For example, some have found that "[m]ost students elect to halt study of science as soon as they are permitted to do so" (Yager, Tamir & Huang, 1992, p. 349). Such trends have been visible in the last decades (Kennedy et al., 2014; Lyons & Quinn, 2010a). And several studies show that students' interest in science and technology gets lower and lower as they grow older, (Jidesjö, 2012) although there are studies that indicate the opposite (Lyons & Quinn, 2010b).

On the other hand, recent Swedish research has indicated that students are interested in topics that could be included in science and technology education, but these are not the issues discussed in the classroom – rather, the students are interested in topics discussed in the media, and it might at first sight seem as if they are uninterested in science and technology education, since they might be uninterested in the content presented in school (Jidesjö, 2012). Similar findings have been reported internationally (e.g. Lyons & Quinn, 2010a).

In line with this, recent studies have also shown that students seem not to be interested in science and technology *in general*, but that most of them have some interest in some aspects of science or technology, most often such topics that are of importance for society and that have a relevance for the world outside the classroom.[26] (Jidesjö, 2012) It has also been found that the interest of the students dramatically differs from what the teachers claim that they teach

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[25] It should be noted that there is a vast literature concerned with student attitudes toward S&T in Education, which utilise a far more nuanced vocabulary, distinguishing between several types of attitudes, not only interest-disinterest. But this is not the topic of the present study, so I will not venture into that field.

[26] It can then be asked, of course, whether they are really interested in the science or technology issue *per se*, or mostly in the larger picture in which the science and technology piece plays a part.

(Jidesjö, 2012), which seems to mean that students are uninterested in school science and school technology, such as they are presented today.

It is also important that students find school technology and science interesting, and come to appreciate and enjoy it. Positive experience of school science and technology is important because "[s]uch impressions of the subject linger in the minds of the learners, long after school is over, and are likely to shape the behaviour, interests and attitudes also in adult life" (Sjöberg & Steiner, 2010, p. 4). The authors hence conclude that such [P]ositive experiences [of science education] are likely to have a lasting positive effect" (Sjöberg & Steiner, 2010, p. 4). These can include the willingness to contribute to society's efforts in science and technology in a number of ways, and it can also include a more positive view of school and education in general. Therefore, "from a life−long educational and societal perspective, the affective dimensions of science education should be seen as just as important as the measured test scores [e.g. PISA and TIMSS] at the end of compulsory school" (Sjöberg & Steiner, 2010, p. 4). But in order to achieve this, school must be able to make the content in science and technology education relevant to the students: "[the] lack of relevance of the S&T curriculum is probably one of the greatest barriers for good learning as well as for interest in the subject" (ROSE, 2014). Sjöberg and Schreiner also claim that higher-level thinking and reasoning aspects possibly taught in school are more lasting than lower level "facts learning": "When the contents (facts, concepts, laws and theories) of school science is forgotten, the 'ethos' or 'atmosphere' of the subject remains" (Sjöberg & Schreiner, 2010, p. 4).

From S&T in practice to STS in theory

In the 1980s, several countries, united by UNESCO, initiated a quite new way of thinking about science and technology education, under the slogan "Science for All" (Fensham & Harlen, 1999; UNESCO, 1983). Although it differs quite considerably from the classical approach, this approach can trace its roots back to such educational theorists as Dewey (e.g. 1916) (Aikenhead, 2006). This new direction has since begun spreading worldwide[27], and is often explicitly connected to citizenship aims. For instance, Sjöberg and Schreiner, (2010, p. 4), in a summary of some key findings of the ROSE project[28], state that

> [p]art of the rationale for having science in the obligatory school is not just to convey the established science knowledge, but also to inculcate respect for and appreciation for science as part of our culture. Moreover, we know that values and interests are important determinants for future educational choices as well as other behaviors as citizens. (Sjöberg & Schreiner, 2010, p. 4)

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[27] As will be clearer below, this has also had an impact on the Swedish curriculum (Lgr11). Interestingly, in the "core contents" section of the syllabus of Technology, a trace of this historical development can be seen, since the contents are divided into three parts, where the third "Technology, man, society and the environment" rather closely – both in name and content – resembles the typical STS approach, as will be seen below, (while the first two are typical of the traditional approach). So there are elements of both the "traditional" and the more modern "STS" approaches to technology education in the Swedish syllabus.

[28] The ROSE (Relevance of Science Education) project is an international project "meant to shed light on affective factors of importance to the learning of science and technology" (ROSE website, http://roseproject.no/?page_id=4, retrieved at the 9th of October, 2014).

While they touch upon several motives, a final one is that students' abilities and knowledge (both of these here understood in a broad sense) regarding technology and science, are important for several aspects of their (future) citizenship, and values and interest are of special importance in this context. The Swedish national curriculum also expresses this argument, that understanding of technology is an important part of being a good citizen, and also in being able to perform work: "In our time, more exacting demands are imposed on technological expertise in daily and working life, and many of today's societal and political decisions embody elements of technology" (Swedish National Agency for Education, 2011a, p. 254). Allchin gives one example of the need for all citizens to be able to assess scientific and technological claims:

> In October 2012, an Italian court ruled that mobile phone use was linked to a plaintiff's brain tumour, although even with several large scale studies, no scientific consensus supports such a causal connection, and the measured levels of radiation are theoretically unlikely to have any effect.[29] (Allchin, 2014, p. 1911)

One widely influential approach to technology education closely connected to the modern citizenship aim of technology education is called the "Science-Technology-Society" (STS) approach (although it is sometimes called by an array of other different names[30]), and it is often defined as *teaching and learning science and technology in the context of human experiences* (Yager et al., 1992). This description is quite vague and not very informative. But it is often described as an attempt to put science and technology in a societal context (McGinnis & Simmons, 1999; Pedretti, 1997), to connect science and technology to questions that matter to students (McGinnis & Simmons, 1999; Ozaktas, 2013), to connect it to ethics (Alpay, 2013; Han & Jeong, 2014; Kaya, Yager & Dogan, 2009; Ozaktas, 2013; Pedretti, 1997; Rubba & Andersen, 1978; Vázquez-Alonso et al., 2006) and epistemology (Vázquez-Alonso et al., 2014), and teach critical thinking and other science process skills (such as inquiry, and problem solving) (Arno-Macia & Rueda-Ramos, 2011; Pedretti, 1997; Yager et al., 1992) as well as an understanding of the nature of science and technology (Aikenhead, 2006; Mackay, 1971). The "nature of science" elements sometimes advocated, is often denoted "NOS." The phrase "scientific literacy" is commonly used to denote the ability to understand how science works and its role in society and to the human epistemological project (Pedretti, 1997; Rubba & Andersen, 1978; Vázquez-Alonso et al., 2006). This includes an understanding both of the epistemological prospects and limitations of science, as well as an understanding of ethical aspects of technology and technology use – in short, philosophy should, in several ways, be

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[29] The point here being that Allchin believes that from a science and technology point of view, it seems that the court should rule against the plaintiff, and the reason that it did not shows that even the court does not understand these matters well enough to produce reasonable decisions, something that has substantial implications for Italian society.

[30] Vázquez-Alonso et al. (2006) list some of these alternative names, including "science and technology (S&T) for all," "scientific and technological literacy," "S&T for citizenship," and "argument, critical reasoning, and decision making on social topics related to S&T." They also refer to further reading. Sometimes, an "E" is also appended, making the abbreviation "STSE," which is short for "Science-Technology-Society-Environment" (Pedretti & Nazir, 2011). Aikenhead (2006) also claims that the terminology "humanistic science education" is even more suitable, since it includes but is not limited to the STS content, instead focusing on the perspective taken on science education, which means that humanistic approaches are taken, especially the ethics and other philosophy of science, its sociology and history.

included in teaching (Aikenhead, 2006; Allchin, 2014). Simply put, one difference between this approach and a traditional approach is that within an STS approach, technology content is considered together with content from the philosophy of technology, history, and focuses on social science and humanities aspects of technology and science (Aikenhead, 2006; Aikenhead & Ryan, 1992). It is also common in STS approaches that content and material used in the classroom are connected to students' lives and surroundings (Aikenhead, 2006; Pedretti, 1997; Yager et al., 1992). Such elements are clearly visible in the Swedish syllabus for Technology as well, as we shall see below (Swedish National Agency for Education, 2011a).

The recent attention to ethics in technology education is displayed by many contemporary researchers that are arguing for the importance of ethics (and other philosophy) in technology education, in various levels of the educational system (Aikenhead, 2006). For example, approaches that include such elements are taken at the upper secondary school (Han & Jeong, 2014), university level (Ozaktas, 2013), with doctoral students (Børsen, Antian & Glessmer, 2013) and with children of all ages in school (Pedretti, 1997; Kaya et al., 2009), already starting in preschool (McGinnis & Simmons, 1999), through a range of different pedagogical setups, such as using role play (Doorn & Kroesen, 2013), case studies (Alpay, 2013), group learning (Alpay, 2013) and online learning environments (Arno-Macia & Rueda-Ramos, 2011). The amount of, and explicitness of, ethics within such approaches varies (cf. Kaya et al., 2009), and my interpretation of research literature entails that the way in which ethics is dealt with varies as well.[31]

In general, there are many ethical issues related to technology and technology use, amongst those are issues related to education and technology (cf. Gardelli et al., 2014; Smedts, 2008;), to technology in healthcare and medicine (Elsner, 2006; McNamee & Edwards, 2006), and to technology and its relation to nature and the environment (Franssen, Lokhorst & van de Poel, 2015). Technological advances and innovations often pose new ethical problems that we need to deal with and respond to (Foladori, Invernizzi & Zayago, 2009; Zeiler, Furberg, Tufveson, & Welin, 2008). And an increasingly technological world and society demands more and more of us, as citizens (Vázquez-Alonso et al., 2014). In recent years, questions regarding youth and the Internet have become central (Dunkels, 2007; Livingstone, Haddon, Vincent, Mascheroni, & Olafsson, 2014). School therefore seems to have a responsibility to prepare for this situation (Pedretti, 1997).

Some have argued that not only are there many ethical issues of importance for technology, but that technology has an inherent normative component, so that all technology is related to ethics. In such a vein, De Vries (2005, p. 149) claims that "[t]echnological knowledge has a normative component that scientific knowledge does not have." Whether or not that is true of scientific knowledge, De Vries gives compelling arguments that technological knowledge includes a moral element. He also draws educational implications of this: "For technology education the normative component is important. […] Pupils must also learn to deal with ethical and other values when doing technological project work" (De Vries,

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[31] Although it is rare to find explicit descriptions of how ethics is treated, so it cannot be said with certainty that such is the case. But this lack of explicit descriptions itself is a reason to believe that no consensus is to be found, because it seems that there is a lack of understanding of the need for such explicitness in the first place, which suggests that the understanding that it can be done in several different ways is probably not widespread. In that case, different people likely do different things.

2005, p. 149). Moreover, in understanding technology education, De Vries claims that philosophy, and in particular philosophy of technology, is of importance: "The reflections that the analytical philosophy of technology offers can be very useful to take into account when considering a conceptual basis for technology education" (De Vries, 2005, p. 150).

Besides the citizenship aim of technology education, there is another aim that many take to be the most important; the need to help coming generations take care of planet Earth (Allchin, 2014; Børsen et al., 2013; McGinnis & Simmons, 1999). There is a consensus that also this demands the inclusion of ethics in technology education (Alpay, 2013; Børsen et al., 2013; Doorn & Kroesen, 2013; Spier & Bird, 2014).

As we have seen above, besides ethical aspects, there is also a great emphasis on higher level thinking skills in the STS approach to technology education. More generally, and irrespective of whether school puts its focus and emphasis on the students who will proceed to higher education in these subjects, or on all students, the development of higher level thinking skills (or "science process skills," as it is sometimes labelled in this context) such as inquiry, logical reasoning or critical and creative thinking, are often taken as a major reason for or aim in (science and) technology education. Some take this to be *the* major argument or aim (cf. Allchin, 2013). Furthermore, while logic and structured thinking is of great importance in scientific practice – Rutherford and Ahlgren (1991) consider it necessary for the advancement of science – other abilities might be needed as well. Rutherford and Ahlgren continue their investigation into the nature of science:

> Scientific concepts do not emerge automatically from data or from any amount of analysis alone. Inventing hypotheses or theories to imagine how the world works and then figuring out how they can be put to the test of reality is as creative as writing poetry [… K]nowledge and creative insight are usually required to recognise the meaning of the unexpected. Aspects of data that have been ignored by one scientist may lead to new discoveries by another. (Rutherford and Ahlgren, 1991, ch. 1)

The importance of imagination and creativity to science and technology is highlighted by many researchers and educational theorists, as exemplified above, and curiosity is likewise considered a natural state for children, e.g. by Dewey who claims that "the native and unspoiled attitude of childhood, marked by ardent curiosity, fertile imagination, and love of experimental inquiry, is near, very near, to the attitude of the scientific mind" (Dewey, 1991, Preface). But while imagination, creative thinking and curiosity are natural and important for both science and technology, the science and technology classroom has been shown not to contribute to children's creativity and curiosity, but rather the opposite, as we will see below.

STS in practice

Both researchers, teachers and policy makers have been positive to the inclusion of STS within science and technology education (Kaya et al., 2009; McGinnis & Simmons, 1999). The Swedish national curriculum for compulsory education, in the syllabus for Technology, also endorses this, in stating that

> [t]hrough teaching, pupils should be given the opportunity to develop their understanding of the importance of technology and its impact on people, society and the environment. In addition, teaching should give pupils the preconditions to develop confidence in their own ability to assess technical solutions and relate these to questions concerning aesthetics, ethics, gender roles, the economy and sustainable development. (Swedish National Agency for Education, 2011a, p. 254)

And in the Technology programme in the Swedish upper secondary school, ethical aspects of technology and technological advancements have been included in recent times, although such an inclusion has been discussed since the 1950s (Kåreklint, 2007). The inclusion of these elements into the Swedish curriculum is similar to the development in many other countries (Vázquez-Alonso et al., 2014).

But studies have found that the actual inclusion in practice of such elements as the STS approach prescribe have been few and minor (McGinnis & Simmons, 1999). And it has been shown that among students who are at the beginning of their university studies, there is no significant difference between science and non-science students in how they answer central questions regarding the nature of science and questions typically raised within an STS approach to science and technology education (Vázquez-Alonso et al., 2014). This suggests that current education is unable to help students develop skills and knowledge in these areas.

Furthermore, research has shown that neither students nor teachers have a proper understanding of the content typically taught in an STS approach. Vázquez-Alonso et al. (2014, p. 34) suggest that such findings "are common to different countries and ages and leave no doubt about the severity of the problem." Indeed, similar findings have been reported for several decades (cf. Mackay, 1971; Rubba & Andersen, 1978). Several studies have shown that students soon forget the content of science and technology education (Englund, 1997). Some studies even show that science students have less sophisticated beliefs regarding some aspects of the nature of science than non-science students (Vázquez-Alonso et al., 2014). One explanation for this is suggested by Vázquez-Alonso et al. (2006, p. 682), as they highlight the fact that "STS topics are complex, controversial, value laden, and new to most teachers, which increases the difficulty of understanding, teaching, assessing, and diagnosing these preconceptions."

Pedretti and Nazir (2011) also note that there is much confusion regarding what such an approach as discussed above really means, and there is great diversity regarding practice and pedagogical methods, approaches and models. Another proposed example is that teachers perceive a great deal of the content from STS approaches as controversial (McGinnis & Simmons, 1999). And many science and technology teachers lack the competence and the interest to deal with these matters. Some claim that this is true for a majority of them (Ozaktas, 2013). Indeed, Kåreklint found that some teachers in his study explicitly claimed they tried to avoid ethical topics since they felt they lacked knowledge about "ethical matters" (Kåreklint, 2007, p. 207). Kåreklint (2007), in discussing the changes in technology education and the engineering society, describes how a discussion about ethics has been emerging in the last decades. He discusses ethical codes and how different people have suggested that students can learn ethics, but seems to conclude that since there are different proposals about what an engineering ethics consists of, or how to act in relation to technological situations and dilemmas, it is difficult (maybe even impossible?) to educate in ethics in technology. He

finally concludes, as the title of his thesis ("On the possibility to teach in ethics") ponders, that it might indeed be possible to educate in ethics, but that the "teacher cannot act as an ethical expert [since] there is no such thing" (Kåreklint, 2007, appendix)[32] and that the education must be one of hope: "A hope that [the teacher] will awaken pupils' consciences: to see the other, what the situation demands and what it would involve to do this or that" (Kåreklint, 2007, appendix). In his discussion, Kåreklint goes back and forth, sometimes discussing the idea that the point of ethics in technology is to teach students to reason about these matters, but as soon as the idea emerges, it disappears, and it seems to me that he does not distinguish between on the one hand discussing ethics in school, which he seems to think is possible, and on the other hand, teaching students some pre-defined values, which he does not seem to think is possible (since he thinks that consensus in moral matters about technology is not to be found). Hence, he ends up in the rather weak position described above, as a consequence of believing that ethics education must include value transmission.[33] This is yet another example of a case where this mixture of approaches, as I will show that this really is, then obviously has significant consequences, and hence it seems that more clarity in these matters would be beneficial, which I hope to contribute to with this thesis.

In studies of logical reasoning and higher level reasoning skills, it has been found that science and technology education does not make students better at logical reasoning and that it makes them less curious and creative: "[a]lthough curiosity is the starting place for science (and technology), typical school science programmes tend to destroy natural curiosity. The longer students study […] the less curious they are about the natural world" (Yager et al., 1992, p. 349). Such findings are typical of the research that has been carried out up to now (Jidesjö, 2012). Yager et al. (1992, p. 349) also note that such developments have been going on for a very long time, stating that

> [a]lthough focus on science process skills (inquiry, critical thinking, problem solving) has been the intention of science education reformers for more than 50 years, there is virtually no evidence that typical science courses have been successful in stimulating growth across grade levels in students' mastery of such skills. (Yager et al., 1992, p. 349)

While their findings were presented more than 20 years ago, these situations had already been in play for at least 70 years, even then. Furthermore, there might be reasons to believe that this is nothing that concerns only science and technology education, but is a more general

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[32] On page 207 (Kåreklint, 2007), he states that "The teacher cannot act as an ethical expert, she has to act as a person acting on the foundation of her own ethics," a view that seems to correspond well with the idea of a "private morals," criticised by Lundgren and Söderberg (1999, p. 27), as we have seen above. It should also be noted that I think that Kåreklint here intends to speak about what, in my terminology, it would be better to call "moral expert" than "ethical expert". Moreover, if one by "ethical expert" means someone who is an expert in saying something *about* morality (in contrast to within morality (or something like that)), then it seems that Kåreklint himself would be an ethical expert, would he be correct, since he then said something true about morality. But then, it would have been false. Hence, it must be false that there are no ethical experts.

[33] And, it seems that his final position, unfortunately, still involves a form of view on ethics that he seems to reject, namely the idea that there are some things which ought to be done, since he states that the teacher should hope to inspire the students "to see the other, what the situation demands" – but how can he, given his own framework (that there are no ethical experts), know that *this* is what morality demands or ethics consists of? Stating that seems to be to place oneself in the role of an ethical expert.

problem. Lipman et al., also sharing the view that curiosity is a natural state for young people, claim that:

> Most students are curious, and intellectually lively. The chances are that they will become increasingly less thoughtful and less reflective as they grow up. The change is so gradual […] that one hardly notices the loss. […] Suddenly [one] may begin to see that they are becoming unimaginative, unquestioning, uncritical in their behavior. (Lipman et al., 1980, p. 92)

Besides the moderate criticism presented above, there are also those writers that do not hold back on their dissatisfaction with the current state of science and technology education:

> The status quo for school science and technology is unacceptable. While the former is often required for admission to university engineering, as well as to science programmes, the latter is deemed most appropriate for less able, concrete thinkers. This situation persists, despite the fact school science tends to generate large groups of citizens who are relatively scientifically and technologically illiterate, largely as a result of its preoccupation with identifying and training potential scientists and engineers. This practice is tyrannical. It must be abandoned forthwith. (Bencze, 2001, p. 273)

Bencze also claims, with reference to several researchers, that

> much research suggests [that] large proportions of adult populations have limited or confused understandings of common [scientific] laws, theories and technologies, fragmented or distorted epistemological and ontological conceptions, and a general inability to solve problems using methods from science and technology (Bencze, 2001, p. 274).

Whether or not one is *that* dissatisfied with current technology education, the fact that current science and technology education, including more STS-inspired education, does not fare very well in helping the students develop their logical reasoning and not their creative thinking either, gives strong reasons to believe that there is a need for an approach to technology education that actually can help promote both logical reasoning and other critical thinking skills, as well as curiosity and creative thinking.[34] There are also several reasons given by proponents of the kind of approaches described above for why aspects such as ethics are important for technology education, and hence should be given more room. But there are several different (possibly incompatible[35]) ways in which this should be done. In the end, I will have proposed and discussed a way of dealing with ethics in school that could provide the underpinning needed for an STS approach to technology education.

Børsen et al. (2013) summarise the situation for university students in stating that the "need to make young scientists aware of their social responsibilities is widely acknowledged, although the question of how to actually do it has so far gained limited attention" (Børsen et

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[34] Although several studies have shown a plethora of problems, there are also contemporary studies that show results from STS approaches, such as increase in moral development (Han & Jeong, 2014). Some have claimed that the best results are produced if both teachers with a typical science and technology background, as well as teachers from a humanities background (such as those educated in Ethics or History), teach in STS education, since Technology teachers are rarely qualified and interested (Ozaktas, 2013). This might help explain why many results have been lacking.

[35] Whether or not the different approaches to ethics in school are indeed compatible will be addressed in the discussion.

al., 2013, p. 1491). I ask a closely related question, but regarding all students in school, not only those that have chosen to become engineers or scientists through university studies. We have seen that there are several reasons for including ethics in technology education: but how should it be done?

This uncertainty about practical methods might be, at least in part, due to a lack of theoretical underpinning of the field. Ankiewicz, de Swardt and de Vries depict the current situation for technology education and its relation to philosophy of education: "Technology education at school level is currently a developing learning area worldwide. In contrast to the other learning areas where a well-founded subject philosophy exists at least for particular components, there is as yet no established subject philosophy for the Technology learning area" (Ankiewicz, de Swardt, & de Vries, 2006, pp. 117-118). This constitutes a good argument for the present study, which aims to contribute to such a framework.

Students' online behaviour

Over the last two decades, there has been an explosive growth of virtual frameworks (Søraker, 2008). The usage of these relatively new kinds of platforms is considered to have vast impact on global communication (Livingstone & Smith, 2014). The last decade has seen drastic changes in children's usage of ICT (Dunkels, 2010), and "the widespread use of social network sites (SNSs) by children has significantly reconfigured how they communicate, with whom and with what consequences" (Livingstone, 2014, p. 283). Several concerns arise from the globalisation of information and communication technologies, for instance ethical issues related to privacy (Zlatolas, Welzer, Heričko & Hölbl, 2015). Moreover, as young people have a strong online presence (Ward, 2008), and this is true of ever younger children with each passing year (Livingstone & Smith, 2014), they can be considered to be exposed switchpoints in a globalised information flow (Turner, 2007). Never before have young people had such extensive opportunities to orient themselves in the public debate on their own as we have today (Livingstone & Smith, 2014). As the Internet provides opportunities for global flows of information (Turner, 2007), modern information and communication technologies allow for global activities as well as the sharing of knowledge (Lor & Britz, 2007). Advances in online technology make global communication increasingly possible (Ward, 2008) and allow for minorities to make their voices heard (Hackett, 2006), including children, who can be seen as a minority with lower power than adults (Dunkels, 2007). Because of the immense amount of information available on the Internet, we now have great opportunities to acquire a multifaceted picture of facts and events in order to autonomously develop our own positions and approaches to the ideas and messages we encounter. However, the availability of this vast amount of information has also imposed a greater responsibility upon each individual to critically assess information encountered. Unfortunately, it has been found that many children lack key skills and abilities needed for evaluating information they encounter online: "38% of pupils aged 9-19 trust most of the information on the Internet, and only 33% of 9-19 year old daily and weekly users have been taught how to judge the reliability of online information" (Livingstone, Haddon, Görzig & Olafsson, 2010, p. 9).

Online communication "is not always a positive experience for children and young people, and the benefits must be balanced against the problems" (Livingstone & Bober, 2005, p. 22). On the other hand, while risks such as unwelcome content or contact online certainly are reported by researchers, "these risks of going online gain far more publicity, and arouse far more anxiety, than the risk of not going online (i.e. the digital divide)" (Livingstone, 2007, p. 10).

The question of children's safety online is difficult since there are conflicting views at play, and since there seems to be a generational divide (Valcke, Bonte, De Wever, & Rots, 2010) or generational gap (Dunkels, 2010), today's children being called the *digital natives* (Prensky, 2001; Livingstone et al., 2014) and the *net generation* (Selwyn, 2009). Although some researchers claim that this is a myth,[36] these "simplified understandings remain influential in shaping contemporary public, political and academic expectations of the technological capabilities and demands of [these] children and young people" (Selwyn, 2009, p. 364–365). Several studies have found that most parents consider their adolescents to be the computer guru of the house (Valcke et al., 2010, p. 454), and sometimes this is described as a *reversed socialisation*, to "explain situations where children developed a better understanding and/or have acquired better skills as compared to their parents" (Valcke et al., 2010, p. 455). On the other hand, parents and grown-ups are oftentimes creating Internet usage rules (Barkin et al., 2006), a situation that can become paradoxical and a source of conflict (Dunkels, 2008), and a large amount of children report the adult supervision of their online life to be problematic, (Livingstone & Bober, 2005) which leads some to try to avoid this supervision and hide parts of their online behaviour from the adults around them (Haddon & Livingstone, 2014; Livingstone & Bober, 2005).

Similarly, a large amount of children have been reported to consider themselves to know more about the Internet than their parents (Livingstone et al., 2011; Livingstone et al., 2014). A youth worker quoted by Livingstone et al. (2014) sums it up as follows:

> I think we're in a very unique time span at the moment where adults, those in charge, don't have the technical knowledge that the young people have now, so we don't know what we're saying. They know a lot more about it than we do, and think they know it all. Whereas I think in another generation, well, things will obviously move on, but I just think we're stuck in that, you know, with that kind of lack of knowledge. (Livingstone et al., 2014, p. 29)

This situation could be assumed to fade away over time, since the generations now becoming parents are closer to belonging to the net generation.[37]

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[36] According to this research, today's children do not acquire digital literacy naturally, and their usage of the new technology is varied and often unspectacular, although they are quite self-confident, most of them thinking that they know more about the Internet than their parents. (Livingstone et al., 2014; Selwyn, 2009)

[37] Although Livingstone et al. (2014) found that the amount of children who considered themselves to know more than their parents has stayed the same since 2010, and they conclude that while the parents have more knowledge now, compared to then, the same is true of the children (as perceived by the children themselves, at least). Maybe this situation will go on for a longer time than one might expect.

Fears and worries

Dunkels (2007) claims that much of adults' early thinking about young people's Internet usage was dominated by fear, perceived dangers, and aversion, especially in the media and in the everyday discourse, but also among researchers, a trend that still carries on somewhat today (Finkelhor, 2014). Generally, this is characterised by a demonising of Internet usage in the media (Hinduja & Patchin, 2008). This media panic and the dystopian pictures broadcast were actually what led Dunkels into her research interest in the first place. She notes that:

> A market has emerged for lecturers who reveal the dark side of young people's media use: paedophiles seeking contact over the Internet, access to racist and sexist material, online bullying, mobile phone harassment, computer addiction, obesity, children publishing sexually loaded self-portraits and disclosing personal information. (Dunkels, 2007, p. 11)

But her findings suggest that "[t]he children know what the dangers are but do not express any fear for their own persons" (Dunkels, 2007, p. 12). She quotes Tapscott, who almost twenty years ago seemed to be of a similar conviction: "Everybody relax. The kids are all right. They are learning, developing, and need better tools, better access, more services, and more freedom to explore, not the opposite" (Tapscott quoted in Dunkels, 2007, p. 19). His position seems to be quite simple: just give the young people more freedom and things will be fine, a kind of optimism that is quite common in the early stages of new technology (cf. Hofmann, 2009; Krier, & Gillette, 1985).

Still today, though, many people are not as sure as Tapscott that everything is all right. More than 40% of all compulsory schools in Sweden, and almost half of all upper secondary schools, restrict Internet access for the students on school computers or the school network (Holmqvist, 2009). Internationally, the numbers are considerably higher: in a study of 577 schools, Wishart (2004) found that only 5% of the schools allowed the usage of instant messaging platforms for school work, and only 4% did for recreational use, and about 60% of the schools were monitoring all Internet usage. And reports in the media still highlight new dark consequences of Internet usage among young people, although the picture might be more nuanced now, a trend that could already be seen a few years ago (Dunkels, 2007). Some of the more common risks noted in research are: "cyberbullying, contact with strangers, sexual messaging ('sexting') and pornography" (Livingstone & Smith, 2014, p. 635), which the authors found to affect less than 20% of the young people in their study. A few years ago, online bullying was more rare than face-to-face bullying (Livingstone et al., 2011), but lately, the amount of children that report cyberbullying has increased, and recent studies have found that cyberbullying is now more common than face-to-face bullying (Livingstone et al., 2014). Others report that among the major concerns of grown-ups is the so called *stranger danger* (Livingstone, 2014), "the possibility of sexual predators and pedophiles finding and then assaulting adolescents who carelessly or unwittingly reveal identifiable information on their personal profile pages" (Hinduja & Patchin, 2008, p. 125).

Indeed, the reported findings that youth do not express any fear for themselves are contradicted by several researchers, for example Stahl and Fritz (2002) claiming that about one fourth of the students had felt unsafe while being online and Valcke, Schellens, van Keer

and Gerarts (2007), who claim that more than 20% of the studied children reported that they had felt threatened online. In a large study involving more than 1500 children aged 9-19 and more than 900 of their parents, with several methods of data collection such as face-to-face surveys, focus group interviews and qualitative interviews, Livingstone and Bober found that "three quarters of 9-19 year olds (74%) are aware of some Internet safety campaign or have heard or read a news story that made them think the Internet can be dangerous, 48% of daily and weekly users worry about 'being contacted by dangerous people', and 38% worry about 'others finding out things about you'" (Livingstone & Bober, 2005, p. 23). And most respondents, about three quarters, in Stahl and Fritz's study "reported contact with a stranger via e-mail or chat rooms" (Stahl & Fritz, 2002, p. 8). Already in the first years of the new millennium a "significant proportion of all respondents (25%) acknowledged sharing identifying information about themselves such as name, school, address, or phone number" (Stahl & Fritz, 2002, p. 8). And in recent years, those behaviours have increased dramatically (cf. Livingstone et al., 2014).

Children's online safety

Research on whether children and adolescents *in fact* act safely online reports somewhat conflicting findings. Hinduja and Patchin (2008, p. 125) claim that an "overwhelming majority of adolescents are responsibly using [a major social network site]," while Valcke et al. (2007) note that in a large scale study of adolescent girls, more than 60% had used the Internet at least once in an unsafe way, and about a third of them had met with strangers they met online, a third of these not reporting this to their parents. In another study, Valcke et al. found that "young children lack a sufficient level of e-maturity to be able to manage [online risks, and that] 86.3% of the primary school children did reflect unsafe Internet usage" (Valcke et al., 2010, p. 454). Livingstone and Bober (2005) found that about half of the children aged 12-15 years gave personal information to people they had only met online, and moreover, several studies have found that many children "don't understand the risks of passing personal details to unknown Internet 'friends'" (Valcke et al., 2010, p. 455). An American study found that more than one in four of the participating high school students reported that they had sent nude pictures (what is known as "sexting") of themselves to someone else, a behaviour that has received quite a lot of attention in American media and that has been reported to lead to problems such as bullying (Temple et al., 2012). A problem is, as Livingstone and Bober note, that "general safety knowledge does not always translate into safe practices" (Livingstone & Bober, 2005, p. 23).

Although some consider there to be an exaggerated alarmism, parents have been found to underestimate the amounts of risks that their children encounter online (Livingstone & Bober, 2005). Adults are also often ill-informed about children's use of the Internet, and what risks they encounter. Livingstone et al. report that some "of the activities that policy makers and parents worry about are, in fact, rather rare" (Livingstone et al., 2014, p. 3). Thus, some risks are said to be overrated, as it for example has been reported that

[one] of the major anxieties regarding young people's online communication concerns 'stranger danger', that is, the idea that young people might meet someone online, be persuaded to meet them offline and end up being abused in the face-to-face encounter. Such incidents do occur, although prior research suggests they are rare. (Livingstone et al., 2014, p. 40)

On the other hand, other risks are quite common, but not noticed by the adults. For example, "nearly half (46%) of [children] say that they have given out personal information […] to someone that they [have only] met on the Internet. By contrast, only 5% of parents think their child has given out such information" (Livingstone & Bober, 2005, p. 22-23). Dunkels (2008) claims that there are two main ways of finding friends online: browsing and recommending. By browsing, she means "[b]rowsing through other users' presentations, looking for users in your physical neighbourhood, with the same interests as you, or who just appear to be nice, and then contacting them" (Dunkels, 2008, p. 173), an activity she found to be common among the youths, while recommending friends means to search for new friends among your friends' friends. It should be noted that these might be friends of your friend through browsing.

It has also been noted that it isn't always that easy to make the right choices online, given the rules one has been provided with:

> While they are often actively [thinking] about and discussing online risks, they may still not always act wisely in [a] risky situation, as adults see it, because for children it can be difficult to match the advice given and the online situation they face. Online situations are often ambiguous or confusing. Clear rights and wrongs are difficult to determine. The trickiest risks are posed not by strangers but by peers, complicating children's lives. (Haddon & Livingstone, 2014, p. 6)

Different groups of students are also more likely to encounter certain types of risks relating to online behaviour, while others are more likely exposed to other risks. And the types of risks encountered also correspond to other factors, as well. For example, in a 2002 study, a group of students "acknowledged feeling unsafe because of a person they had been in contact with through the Internet" (Stahl & Fritz, 2002, p. 8). These were more likely to be "female, […] more likely to communicate with strangers and to share identifying information, […] and more likely to report feeling bad as a consequence of breaking computer-related rules" (Stahl & Fritz, 2002, p. 8).

It has also been found that those young people who take up more of the opportunities online also encounter most of the risks, (Livingstone, 2007) i.e. the more skilled and experienced young people do not avoid the risks (Livingstone & Bober, 2005). Unfortunately, current research shows that online risks are not getting fewer, but the opposite:

> children's exposure to online risk of harm is increasing, albeit not hugely. Such increases are particularly marked in relation to peer-to-peer interactions and UGC [i.e. user-generated content] online rather than engagement with mass-produced content […, such as] exposure to cyberbullying, race hate, pro-anorexia content and self-harm websites. (Livingstone et al., 2014, p. 7)

As the above passage shows, the risks encountered by children seem to be changing over time, even though there are some problems that persist more throughout the years. This also makes it hard for the adults, schools and parents to "keep up." For example, as we have seen above, many children lack skills and abilities needed to assess information online. Several researchers claim that students encounter "difficulties with searching, critical evaluation and a range of online skills, partly because they have received only patchy educational support" (Livingstone et al., 2010, p. 8).

Young people's online exposure to extreme views and arguments

A person who searches the Internet for information often does so on her own.[38] In comparison with direct discussions in a classroom environment, or with reviewed and accepted literature in books or other printed material, it is harder to assess and evaluate the underlying interests and reliability of the persons expressing themselves through anonymous discussion forums on the Internet. In contrast to the broad spectrum of individuals and opinions that are often found in a Swedish classroom, it is likely that the users on an Internet forum are more homogeneous. Such forums can therefore become gathering places for persons with similar interests and worldviews, where they attend in order to have their own beliefs strengthened and confirmed. The discussions that are conducted within these forums therefore run the risk of becoming uncritical. That a statement remains unchallenged on a forum can mistakenly be interpreted as sufficient reason to hold the statement to be correct. If none of the writers on the forum has an interest in trying to challenge certain statements, this can give rise to an incorrect belief that the statement must be reasonable. This suggests that individuals who spend time on the Internet need to both have and trust their own skills when it comes to judging the reliability and value of the information supporting the claims. Skills in critical thinking and a high level of self-confidence and self-esteem would therefore be of importance, since it would lead to young people on the Internet becoming more likely to challenge the one-sidedness and bias, and to question the trustworthiness of claims and arguments portraying a black and white worldview. (Nilsson et al., 2015)

Recent studies have also found that the way people interact with media today is different, in the sense that more and more people are choosing not to come into contact with mainstream media, but rather to read blogs, Internet forums, SNSs and similar online resources that are more tailored to their own views and interests, which, as I noted above and have noticed before (Nilsson et al., 2015), may run the risk that they never come into contact with opposing views, but rather only confirm their existing beliefs, which might lead to a lack of knowledge, or radicalisation, and which is seen as a serious problem for society and democracy (Strömbäck, 2015).

Lately, it has been found that the Internet has been extensively used by proponents of political extremism to spread their ideas, worldviews, and what they claim to be truthful information (Korsell et al., 2009). "Political extremism" is in itself a wide and sometimes not easily interpreted term, which can include many different schools of thought of considerably

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[38] The text in this section is to a large extent based on the article "To Colorize a Worldview Painted in Black and White: Philosophical dialogues to reduce the influence of extremism on youths online"

varying sorts. In the Swedish report Violent Political Extremism – Anti-democratic groups on the outermost right and left wings (translation from Nilsson et al., 2015)[39], henceforth called "the VA Report," by the Swedish National Council for Crime Prevention in cooperation with the Swedish Security Service (Korsell et al., 2009), two quite different (Swedish) movements are discussed and compared, and some shared characteristics of them are presented. In the VA Report, three main elements common to these groups are noted, namely:

1. *A worldview painted in black and white.* The view of society that can be found in these groups is described as both oversimplified and conspiratorial. The problems they perceive in society are claimed to be caused by the influence of certain ethnic or religious groups, or the political system. The politics advocated by the extremist group in question are often claimed to be a solution to all problems and an infallible way to reach an ideal society or utopia.

2. *An anti-democratic viewpoint.* Common to both of these groups is the rejection of the established democracy and the (current) Swedish law in general. Both groups consider themselves to have the moral right to break laws and to violate democratic principles if they are considered to be standing in the way of their struggle.

3. *Intolerance towards persons with opposing ideas.* The political view shared by the members of the extremist group is considered by themselves to be the only one that is correct. People who disagree or think otherwise are not respected and it is considered legitimate to use violence against persons outside their own group, especially if they have political views that challenge the position of the group in question.

In studies about these movements in Sweden, it has been found that people who are exposed to their messages, and who sometimes decide to join the groups, to a large extent are young people (Korsell et al., 2009). In the VA Report, one suggested explanation for this is that young people to a larger extent than others are in search of friendship and identity, and therefore are drawn to associations they believe can provide them with this. Another suggested factor in explaining why these movements attract young people is that many youths are attracted to the dichotomous worldview that these extremist groups depict, where simple solutions to difficult problems are provided, and where certain people or groups of people are identified as scapegoats responsible for the perceived problems in society. These kinds of risks with children's online presence have gained attention in the last few years of research (Livingstone et al., 2011). And Frímannsson (2001) notes that extremist organisations seem to be growing in popularity, a trend that is claimed to have continued recently. (It should be noted, for clarity, that most youths that come into contact with extremism online dissociate themselves from the messages (Korsell et al., 2009).)

The efforts of schools and parents

All the above reasonably calls for ways for helping the students manage the risks, and education has an important role to play here. Dunkels goes even farther, claiming that

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[39] All translations from this report by Korsell et al. (2009) were made by me and were first published in the article "To Colorize a Worldview Painted in Black and White – Philosophical Dialogues to Reduce the Influence of Extremism on Youths Online" (Nilsson et al., 2015) that I have cowritten, if nothing else is said. Page numbers are from the original report by Korsell et al.

"[c]ompulsory school seems to be the perfect setting for addressing online safety issues," (Dunkels, 2008, p. 182) since every child is reached, and parents can be reached as well, by interventions made in relation to compulsory school. It is indeed a common view among researchers that it is important to find ways for education to help students develop media literacy (cf. Dunkels, 2008), e-maturity (cf. Valcke et al., 2010), digital literacy (cf. Livingstone et al., 2011), social media literacy (cf. Livingstone, 2014), Internet literacy (cf. Livingstone & Bober, 2005), or similar notions. But there is a lack of consensus regarding what this really amounts to, what it is that children would benefit from learning, and how it should be done.

School has a very important role to play in providing what some have called a "net-education" (Valcke et al., 2010, p. 455) helping young people to gain as much as possible from use of the Internet, while minimising the risks and dealing reasonably with those risks that do occur (Livingstone et al., 2014). Work has also been done in education to try and deal with these matters, for example through a plethora of different educational programmes, and through the efforts of different schools. While actions taken vary quite considerably, of course, it is quite common, as we have seen, that schools try and limit Internet access for youths. Parents, policy makers and schools alike are trying to cope with the perceived problems relating to children's online lives. "Most [UK] parents whose child has home access to the Internet (86%) do not allow their children to give out personal information online," (Livingstone & Bober, 2005, p. 22) and the picture is quite similar in all of Europe, including Sweden (Dunkels, 2007). But several problems with banning and restricting Internet use have been reported in research. For example, it has been studied if there is some relationship between parental rules and regulations and the risks and amounts of risk that children come across online, but several studies found that no such relationship was present:

> The survey finds no direct relationship between parental rules and regulations and the range of risks that their children encounter on the Internet. Hence, simply banning certain activities seems ineffective. For example, children who have been told not to give out personal information still do provide this online. (Livingstone & Bober, 2005, p. 25)

However, "educational initiatives and awareness-raising campaigns often focus on simple skills (e.g., making an SNS profile private)" (Livingstone, 2014, p. 284), instead of focusing on more advanced or higher level skills, values and critical thinking about online safety. With Dewey (see "The trichotomous distinction and prior theory"), we can say that this is problematic, especially in times of rapid technological changes (such as these times reasonably are), because such educational practices (closely analogous with how customary morality functions), might work in retrospect, but they are inappropriate for the present and the future, since they cannot adapt to the changing environment, but rather are static and connected to particular practical situations of the past, which might not resemble those of the present and the future that the child encounters and will encounter. Such a pedagogy will always be lagging behind, so to say. On the other hand, just as Dewey argues for moral inquiry, the higher level skills and inquiry abilities that help the students learn to come up with new, and appropriate, answers and strategies for the (new) situations they encounter would not have this inherent problem of the simple and direct skills pedagogy.

It seems that there are some differences between practice in Sweden and in comparable countries in the EU and also with the US. In 2003, only 15% of Swedish schools used filters for students' Internet use, but as of 2009, those numbers had risen to about 40% for the compulsory schools, and almost 60% of the head teachers stated that their school had a plan regarding how to work with ethics online, such as teaching the students to responsibly navigate and assess online content and prevent online harassment (Holmqvist, 2009). Only one out of six teachers reported to work with ethics and the Internet, for example issues relating to online bullying or other harassment (Holmqvist, 2009). In the UK at the beginning of the new millennia, 85% of schools reported working with Internet Safety education, and 99% had Internet filters, (Wishart, 2004) and in both the US and the UK, all schools are reported to have *acceptable use policys* permitting and forbidding certain behaviour online (Valcke et al., 2007). But although there might be some differences in numbers, the similarities outweigh the differences (cf. Livingstone & Bober, 2005).

With technical landscapes rapidly changing, parental and adult control is difficult. For example, in just a few years, children have gone from mostly accessing the Internet on a computer at home (Livingstone & Bober, 2005) to communicating through a laptop or a smartphone or an iPad (Livingstone et al., 2014). And, unsurprisingly, over the past few years, "[m]ore children do more of most online activities" (Livingstone et al., 2014, p. 14). Teachers are reported to be very concerned with students being exposed to inappropriate material (Wishart, 2004), while representatives from Internet Safety organisations have been reported as considering children's net literacy as the most important concern (Wishart, 2004).

Regarding rules from adults, "children like to know what the rules are and why they exist; without such understanding, they tend to doubt or evade the rules" (Haddon & Livingstone, 2014, p. 6). Haddon and Livingstone (2014, p. 6) also note that although "it appears that children are indeed listening to adult advice, they often find themselves struggling to make sense of it. The touchstone against which they judge the advice they receive is whether or not it illuminates their own experience." There is also another negative side of the efforts to limit children's access to the Internet, namely that the "emphasis on supervision may lead to both a lack of awareness of good Internet Safety practice amongst children when [being online] outside of school [...] and a lack of emphasis in school on developing independent search and evaluation skills" (Wishart, 2004, p. 200). Hence, while a restrictive school policy might prevent students from being harmed in the short-term, it might make them even more vulnerable to risks encountered online when they do not have the safety of an adult supervising them.

Finkelhor (2014), building upon work by Livingstone and Smith (2014), claims that what he calls "the alarmism" of both researchers and journalists regarding young people's Internet usage basically consists of three main claims: a) that the Internet is more dangerous to young people than other environments, b) that these dangers stem from some features of this online environment, and c) that these problems should be dealt with by "specialised Internet education programming" (Finkelhor, 2014, p. 655). He continues to claim that these are not evidence based, but rather that some contrary claims are more reasonable, of which his third is of most interest here: "(c) that the appropriate responses should not be specialised Internet

safety training but more generic education about life skills, social interaction, emotional intelligence, and media literacy" (Finkelhor, 2014, p. 655).

In a similar vein, Livingstone et al. also very recently came to a similar conclusion, in stating that "children must be educated to become competent and resilient digital citizens" (Livingstone et al., 2014, p. 7). But they also note that no such education is yet existing, but that it "is yet to be implemented or evaluated," (Livingstone et al., 2014, p. 7) and that such "education should link [different competences] so that children are empowered to respond constructively – with critical literacy and moral responsibility – to the online risk of harm" (Livingstone et al., 2014, p. 7).

As current researchers note, there is a lack of research into several important issues relating to the above picture. Among these, if an education should meet the above criteria, more needs to be understood about students' moral reasoning. Livingstone states that research "must move beyond simply listing the digital skills users need to communicate safely and effectively with social media" (Livingstone, 2014, p. 300). Moreover, if education is to be furthered in the above ways, the "development, shaping and consequences of social media literacy need to be further researched" (Livingstone, 2014, p. 301). This, again, includes a better understanding of students' moral reasoning about modern technologies. This includes placing a trust in that students can, with the correct education, come to be able to take an active role in taking the responsibility of their digital ventures: "[m]oving beyond simple visions of children as 'vulnerable' is surely important to empowering them in the digital age" (Livingstone, 2014, p. 301).

Hence, there is a need for education that can take children and their views and experiences seriously, help them develop higher order skills that last over time, that give generic skills, and that they find interesting.

Studying the curriculum

There are many definitions of the very object in scrutiny in curriculum studies[40], the curriculum itself. There is no widespread consensus, rather the opposite. "Taken as an ensemble," writes Dillon (2009, p. 344), "the definitions and conceptions of curriculum are known to be incoherent, and by individual contrast to be divergent when not contradictory." Dillon goes as far as questioning the meaning of trying to find a definition, claiming that some things are undefinable, among them, the term "curriculum." This conclusion might be a bit hasty. First, I wonder what kind of definitions Dillon has in mind. Many would agree that one can propose a stipulative definition any way one sees fit (Gupta, 2015). And there are those that defend the existence of implicit definitions, which might occur even though no speaker is explicitly aware of them, due to the structure of our languages. Even further still,

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[40] Indeed, there is a difference between the English terms "curriculum studies" and "curriculum theory" on the one hand, and the Swedish "läroplansteori" on the other (Lundgren, 2012). One is that the Swedish model with a national curriculum is not present in e.g. the US (Lundgren, 2012). Another is that the Swedish term "läroplansteori" has become closely connected with a specific theory, or model, of how curriculum studies should be conducted, or (as some see it (cf. Dahllöf, 1999)), a theory within curriculum studies (cf. Broady & Lindblad, 1999). But there are other theories and approaches to studying curricula. See more below.

some would claim that concepts exist irrespective of whether or not we manage to (currently) identify them and refer to them. Hence, for several reasons, there is a difference between whether there are yet no definitions that all speakers can agree upon, and the stronger claim that no definitions can ever be given. Nonetheless, one reason for why such difficulties have come up might be the interdisciplinary nature of the subject, falling both within education, philosophy and psychology, among others (Lundgren, 2012).

Just as there are several definitions of "curriculum" within curriculum studies, there are several different methods of curriculum research. Some use discourse analysis (see e.g. Bryan, 2012), others use other semantical analyses (see e.g. Sivesind, 2013), some use hermeneutics and interpretation theory (see e.g. Slattery et al., 2007), while others do philosophical investigations (see e.g. Green, 2010; Orton, 1997), and still others use other methods of research, including sociological analysis (Nash, 2004). Sometimes, a wide variety of approaches and perspectives are collected in the same work (Yager, 2001).

One significant movement in the history of Swedish curriculum theory is the framework for thinking about curriculum sometimes called "ramfaktorteorin" in Swedish ("the frame-factor theory"), although it has been argued, from some of its foremost proponents and creators, that it is not at all a theory, but rather a way of thinking about curricula (Dahllöf, 1999; Broady & Lindblad, 1999), which paved the way for Swedish research into curriculum matters, for which Ulf Lundgren is seen as a main contributor. This research project has been criticised, as notes Green in stating that

> [a]lthough undoubtedly important work in and for the field, arguably this articulation of curriculum inquiry and reproduction theory arrived very quickly at a conceptual impasse, which I see as directly linked to its modernist heritage and its associated view of representation. That is, although generative in developing socially-critical understandings of curriculum and schooling […], this account had inherent in it from the outset significant problems, both politically and theoretically. Consequently, it was challenged by a growing body of work critiquing and problematizing the reproduction thesis, on the one hand, and, on the other, exploring alternative framings for curriculum inquiry and critical educational studies. (Green, 2010, pp. 453-454)

Green continues by noting that since this body of work, curriculum researchers have been increasingly interested in meaning and the making of meaning. At the heart of this enterprise is interpretation, and philosophical theories of meaning, interpretation, and pragmatics. While hermeneutics is not explicitly used by all researchers involved in curriculum studies, some claim that interpretation is indeed at the very heart of curriculum studies (Slattery et al., 2007).

There are studies that compare interviews with students and curriculum examinations. One such is Bryan's (2012) study, where she studies how race and racism is represented and understood in curriculum material and by students through interviews. A similar approach is taken as part of this thesis, relating students' interviews with an interpretation of the curriculum.

Young (2013), in his recent critique of some of the work within the field, argues that curriculum theory – being an important pillar in the educational sciences – fundamentally must be concerned with the students' entitlement to knowledge, and what this right entails,

in answering what he sees as the most central question of curriculum theory, the question of what should be done in school. Several other researchers, such as Green (2010) agree that these questions are at the very heart of curriculum studies. Green states that the central questions of curriculum inquiry are: "What knowledge is of most worth? What should the schools teach?" (Green, 2010, p. 451) Englund, Forsberg and Sundberg (2012, p. 5, my translation) seem to share this view, stating that "What counts as knowledge in education is one of the foundational questions of curriculum theory and one of the central societal questions of our time."[41] But curriculum studies are not merely concerned with the question of what should be in the curriculum, but also what the curriculum, as it currently is outlined, in fact includes (cf. Yager, 2001).[42] These two questions are definitely connected. The latter question, the question of the actual content of the curriculum, is a question of interpretation (Slattery et al., 2007).

Studies into the ethical aspects of the national curriculum in Sweden have been conducted. One interesting example is Norberg's (2006) study, where she found a discrepancy between school practice – in her case the lunch break and moral questions and dilemmas that arise from this situation – and the values affirmed by the Swedish national curriculum. But while her study is based on the actions taken, there is a need to also study how students' reasoning is related to the values of the Swedish national curriculum, which has be done in the present study.

Schwab states, in a dense passage on the nature of curriculum, that:

> Curriculum is what is successfully conveyed to differing degrees to different students, by committed teachers using appropriate materials and actions, of legitimated bodies of knowledge, skill, taste, and propensity to act and react, which are chosen for instruction after serious reflection and communal decision by representatives of those involved in the teaching of a specified group of students who are known to the decisionmakers. (Schwab, 1983, p. 240)

Schwab also argues against seeing the curriculum as a string of objectives, as a collection of ends to be achieved by the learner. One of his arguments is that

> ends or objectives can be defensibly selected only in the light of consideration of available or obtainable means, materials, and teaching skills; nor can ends chosen lead to means and materials which yield only the ends for which they were chosen. There are side effects to teaching devices […] Hence, curriculum reflection must take place in a back-and-forth manner between ends and means. A linear movement from ends to means is absurd. (Schwab, 1983, pp. 240-241)

This speaks in favour of the view that the national curriculum in itself cannot be said to have a fixed content, but rather, its content must be determined by interpretation and contextualisation. Such a view, although there are alternatives, is defended by several

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[41] The question of what the content of the curriculum ought to be (cf. Nash, 2004) is a question within the philosophy of education. So, the questions of the aim of education, and the content of the curriculum are closely connected, and the former also in part belongs in the philosophy of education, as is also noted by Phillips and Siegel (2015).

[42] I do not intend to say that these are the only two questions of curriculum theory. But they are two important such questions.

contemporary curriculum theorists (cf. Connelly, 2013; Terwel, 1999; Slattery et al., 2007). Whether or not such a radical idea of the content of the curriculum is taken or not, an attempt to make a systematic and thorough interpretation of it seems reasonable. In this thesis, I will present an interpretation of the national curriculum, and furthermore discuss some implications of different views on what to include in the curriculum.

Theoretical framework

In this section, I will first present some ontological theories and considerations that will be used throughout the thesis, not least in data processing and in the process of drawing conclusions from the data, and then connect these to ideas already presented in the background, in particular to ideas from Dewey. Then, I will present some ethical theory that will be used in the data processing in order to interpret and understand the interviewed students' reasoning, and thereafter present some theory about ethics in school, that will be used in interpreting and understanding the curriculum, and that will be returned to in the discussions section.

Sanger and Osguthorpe claim that

> [a]ny given approach to moral education must make or imply some assumptions about the nature or scope of morality in order to refer to moral education at all. Thus metaethical assumptions, at a minimum, constrain what might be seen as morally sought after. This leaves open the specific moral goods to be fostered or brought about by that approach, which is the domain of normative theories. (Sanger & Osguthorpe, 2005, p. 64)

Hence, if they are correct, in order to be able to study or discuss approaches to ethics in school, we must have a framework of metaethical theories and normative theories. But in order to discuss metaethical theories, out of which an important sub-class is ontological metaethical theories, we need to say a few words about ontological theories in general, which will both facilitate distinguishing between metaethical theories, and also to enable understanding of such notions as "moral reasoning" and also to lay the foundation for the methods used, as will be discussed below.

Ontology

Realism, about a certain subject matter, is the theory that (i) the subject matter *exists* and has some properties, and (ii) its existence and the fact that it has these properties is *independent* (in a certain way) of anything that anyone says or thinks about it. Clearly, realists about everyday objects like chairs and tables would agree that in some sense, some facts about chairs and tables are dependent on humans, as exemplified by Miller:

> [A]lthough there is a clear sense in which the table's being square is dependent on us (it was designed and constructed by human beings after all), this is not the type of dependence that the realist wishes to deny. The realist wishes to claim that apart from the mundane sort of empirical dependence of objects and their properties familiar to us from everyday life, there is no further (philosophically interesting) sense in which everyday objects and their properties can be said to be dependent on anyone's linguistic practices, conceptual schemes, or whatever. (Miller, 2014, #1)

The crux of this seems to be that realists deny that the existence and properties of the subject matter are constituted by, constructed by, or in any other final way dependent on anything

that anyone says or thinks about it. They are mind-independent. (Kirkham, 1995) For example, given that a certain table is manufactured in a certain way, whatever anyone says or thinks about it, its existence and shape would still be the same. To frame it in a classical manner, it would still be the same, were there no humans (or other thinkers) left in the world to see it or think about it.

As pointed out before (Backman et al., 2012; Miller, 2014) it is common to be realist given certain subject matters. For example, one can accept realism about the external world, while accepting anti-realism regarding moral values.[43]

It should also be noted that it is possible, indeed rather common, to also be realist concerning mental realities, such as beliefs, attitudes, etc. It might be thought that a belief is obviously mind-dependent, since it is a feature of a mind. But, a realist would say that realism regarding mental reality only implies "that this reality be as it is independently of any minding of it, i.e., independently of any attitudes distinct from that mental reality itself, while giving rise to it and constituting it" (Sosa, 1993, p. 193).

In educational research, as we have seen some examples of and will see some further examples of below, realism is not as widely endorsed as in other fields of research, or as in philosophy, although there are exceptions (e.g. Backman, 2016). One question of importance, therefore, is whether that makes it impossible or inappropriate to use a realist framework in educational research. It seems not. Nash (2004) claims that realism can be compatible with insights (if they are insights) from e.g. post-modernism and relativist discourses. A realist would disagree with proponents of such a theoretical framework about *why* the results of that research were obtained, but in case the methodology could be accepted given the realist assumptions,[44] there would be no general obstacle keeping the realist from accepting the results.

The question of which theory, realism or one of its alternatives, is the most reasonable, which theory one ought to believe in, which theory is correct (or whatever way one wishes to formulate it), is a question belonging in philosophy. I will not discuss it here, but settle with noting that realism is the position favoured by a noticeable majority of philosophers, more than 4 out of 5, according to a recent survey.[45] (Bourget & Chalmers, 2014) The authors discuss what role such a survey might play, and whether it has any bearing on what one ought to believe in the questions at hand:

> [O]ne could argue that [the findings of the study] can play an evidential role in answering
> philosophical questions. On this view, the prevalence of views among philosophers can serve as a

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[43] I think this is the view adopted by several notable moral anti-realists, e.g. Blackburn (2002) and Hare (1981).

[44] And such an acceptance would, in the end, have to include some rationale for the methods used and their validity and reliability other than those given in the original framework.

[45] In their paper *What Do Philosophers Believe?* Bourget and Chalmers (2014) surveyed 3 226 philosophers about their beliefs on different philosophical topics. It was found that 81.6% believed in non-sceptical realism, when compared to scepticism (4.8%), idealism (4.3%) and other (9.2%). Of the 32 surveyed questions, no position on any question received such a high endorsement as realism, even though some of the questions only had two alternatives (where the question including realism about the external world included three). And it should be noted that, at least as I use the terms, among the scepticists there might be some realists as well. And, due to this formulation of the question, there might be those that have chosen "other", if they were both scepticists and realists, since they might not want to seem as if they are opposing realism (which it might seem like, if they were to have chosen "scepticism"), but still do not accept "non-sceptical" realism, since they are both scepticists and realists.

guide to their truth. After all, philosophers have had the benefit of years of reflection on these questions and might be taken as experts on them. In science, we often take the prevalence of scientific views among experts as strong evidence about which views are correct […] It could be suggested that expert views should play a similar role with respect to philosophical questions. (Bourget & Chalmers, 2014, p. 466)

While they in the end remain cautious and refrain from making this claim, it is indeed an interesting argument, and it seems that their findings indeed have some value for the rest of us, as well. I would not claim that a survey of this kind could settle philosophical disputes, but I would agree that a strong tendency among experts to accept a certain position is indeed some justification of this position, at least ceteris paribus. Against this background, this thesis is based on a realist assumption in general. Realists generally accept the principle of bivalence; the principle that a proposition is either true or false (Dummett, 1995; Pagin, 2008). This principle has been quite frequently, albeit implicitly, used throughout the work with this thesis, not least in the data processing. And as we shall see, there seems to be a strong connection between realism and abductive reasoning, which has been extensively used in this thesis.

Realism, explanation and pragmatism

Ideas from John Dewey and can be found on numeral places in this thesis, e.g. in relation to the trichotomous distinction between approaches to ethics in school and in relation to abduction. Hence, it is important that I take a stance on some of the main ideas of pragmatism, especially in relation to realism, which the pragmatists are often taken as being opposed to (Blackburn, 2002; Kirkham, 1995). Blackburn holds that realism and abduction go well together, to say the least. Indeed, their connections are even stronger than that, in his view, since he claims that given what he calls "external abduction" – the idea that the ontology that best explains our scientific practices is the one we ought to believe in – leads to realism by a direct route (Blackburn, 2002). Hence, any opponent of realism must deny (external) abduction.[46] But, as we shall see below, abduction is by many taken to be the very core of scientific reasoning, not least in the humanities, due to its role in successful interpretation (see "Interpretation" and "Abductive reasoning"). And it is famously championed by the pragmatists, indeed it was coined by one of Dewey's teachers and inspirational sources, not least concerning inquiry (Burch, 2014; Juuso, 2007). This also opens up the door to showing why Dewey, together with his fellow pragmatists, might have been wrong in rejecting (or ignoring) realism.[47] This opens up an extensive topic, and I will therefore only briefly touch upon it here.

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[46] Moreover, it can be argued that the best justification for external abduction is general abduction, and by abductive reasoning itself, hence we ought to believe in abduction in general. Whether this argument is reasonable will not be further addressed here. Anyhow, it seems that the step from accepting external abduction to accepting (at least some justificatory power) to abduction in general is a small one, and reasonably, many arguments for external abduction will turn out to be arguments for abduction in general, and vice versa. (cf. Lipton, 2004)

[47] In case that is what they in fact did. Most commentators seem to have supposed this, but this will be critically examined below.

Blackburn argues that James, a fellow pragmatist of Dewey's, also interested in understanding what truth is, claims that we must start by looking at how our beliefs function for us, what pragmatics they have. It might seem reasonable to distinguish between belief in a theory and what Blackburn calls animation, which basically means to structure or organise one's thinking in accordance with a theory (perhaps tacitly).[48] But Blackburn argues that such a distinction fails to hold up. And the pragmatists would agree with him on this. Blackburn states that pragmatism

> aims exactly to showing that theoretical belief just is theoretical animation, and to explain the utility and inevitability of theory in terms of predictive organization, control, systematization and other virtues. When James said that true ideas were those we can assimilate, validate, corroborate, and verify, this is what he meant. (Blackburn, 2002, p. 132)

But opening this door, Blackburn argues, leads to realism. When James speaks of truth, he in fact ends up speaking about belief. And what James denied was "*starting* with the idea of correspondence with reality as the ultimate explanation of our intellectual practices" (Blackburn, 2002, p. 133, italics in original). But James was not against "*ending up* with a reality co-ordinate with our beliefs: the things and properties that animate our thoughts, the only ones in terms of which we can ever think and act" (Blackburn, 2002, p. 133, italics in original). Hence, it seems that James would have done best in accepting realism (which I will below argue that it is likely that he also in fact did, pace Blackburn).

James also seems to have believed that Dewey did not give any feasible alternative to realism either:

> [Dewey's] account of knowledge is not only absurd, but meaningless, unless independent existences be there of which our ideas take account [...] But because he and Schiller refuse to discuss objects and relations 'transcendent' in the sense of being ALTOGETHER TRANS-EXPERIENTIAL, their critics pounce on sentences in their writings to that effect to show that they deny the existence WITHIN THE REALM OF EXPERIENCE of objects external to the ideas that declare their presence there. (James, 1909, Preface, capitals in original)

So, in James' view, both he and Dewey (and the other pragmatists) must accept the view that there is a reality outside of our experiences that is the thing which our beliefs are about, and in correspondence to which they are true, if they are.[49] And, as briefly sketched above, such a view, together with abduction, leads to realism. And abduction, as we shall see below, was advanced by Peirce, often considered the founder of American pragmatism (Burch, 2014), and abductive reasoning is in the very roots of pragmatism. James, not dodging the discussion he believes that Dewey owes us to partake in, states that truth is a relation between our beliefs (and opinions, statements, etc.) and their object. This relation is their agreement with reality (James, 1909). This clearly seems to be a correspondence theory of truth implying the

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[48] One example of animation without belief might be this: I might believe that Newton's physics is false (it is contradicted by Einstein's physics, e.g.), but I might still think about the everyday physics I encounter in more or less Newtonian ways (at least more so than in Einsteinian terms).

[49] I wish to note that I find it unpromising to talk as if beliefs are true, but more promising to say that beliefs are in some way connected to propositions, which are the bearers of truth, but this is a technicality in the present context.

existence of a reality outside of the thinking agent – and from this view, it is very close to ending up in realism (although Kirkham (1995) claims that James (oftentimes) perceived the outside reality as mind-dependent, hence anti-realist). James also claims that pragmatists in general accept this view, and also claims that both pragmatists and non-pragmatists believe in the existence of objects – what they differ on is the meaning of "truth." He continues by arguing that all the practical difference that truth can make to us is that true beliefs are those we can assimilate, validate, corroborate, and verify, and false are those that we cannot, because this is all that truth is known to us (James, 1909). But this does not reject realism at all. Believing that would be mistaking epistemology for ontology. From time to time, James seems to be making this mistake. But at other times, he seems only to be stating that we cannot know what the reality-in-itself is, while accepting that there is such a reality-in-itself. Even more interestingly, indeed, at certain times he believes that it is his critics who misunderstand him and mistake his epistemological claims for ontological ones:

> My mind was so filled with the notion of objective *reference* that I never dreamed that my hearers would let go of it; and the very last accusation I expected was that in speaking of ideas and their satisfactions, I was denying realities outside. My only wonder now is that critics should have found so silly a personage as I must have seemed in their eyes, worthy of explicit refutation. (James, 1908, p. 691)

In this section, he explicitly states that he believes in a reality independent of himself, and, moreover, that he cannot see how anyone could have thought he meant otherwise, and, even more interestingly, that he seems to believe that anyone who denies an outside reality must be some kind of clown not worthy of even arguing against. Importantly, he claims that he has been mistaken for talking about ontology when he was in fact not, although he does not use this terminology. Another passage may be taken to show this as well:

> […] our beliefs are in realities; if no realities are there the beliefs are false; but if realities are there, how they can even be KNOWN without first being BELIEVED; or how BELIEVED except by our first having ideas of them that work satisfactorily, pragmatists find it impossible to imagine. (James, 1908, p. 693, capitals in original)

If taken seriously, this passage seems to imply that James did indeed accept realism. Regardless, Blackburn's arguments that James (and the other pragmatists, including Dewey) ought to have accepted it, since it best explains the other parts of their theories, seems compelling. And, by those same arguments, it seems that we have reasons to doubt the pragmatists' epistemological worries that we cannot have any reasons to speak about the external world as being such-and-such, as well.

The pragmatists also hold a particular view on what truth is, in some cases justified by the mistaken rejection of realism. More commonly, though, realism is spelled out with the aid of some version of a correspondence theory of truth, according to which a proposition (or belief or sentence, in some accounts) is true if, and only if, it corresponds to an actual state of affairs (a state of affairs that obtains in the actual world, which is oftentimes called *a fact*.) Such a route seems to me to be more promising than a pragmatist one.

Moral realism

One form of realism that is of special interest here, since it will be used in the discussion, is moral realism. It is not quite as popular among philosophers as realism (without specification), but it is still significantly more widely endorsed than its alternatives.[50]

Moral realism is the view, roughly speaking, that there are moral truths (or moral facts), and that these are mind-independent as discussed above regarding realism in general. For example, Shafer-Landau defines moral realism in the following:

> moral realism stands for the idea that there are some moral claims that are true in a certain way. Their truth does not depend on the attitudes that anyone takes towards their content. Nor are they true, when they are, because of being endorsed, implied or entailed by norms that are constructed from our evaluative attitudes. (Shafer-Landau, 2007, p. 311)

Again, as with realism in general, moral realists might very well believe that they sometimes (some will say always) lack moral knowledge.

The alternatives to moral realism are many, but they can be seen to come in two main camps; the first are those that hold there to be no moral truths (or facts, or properties) at all (let us call these theories versions of "moral nihilism"), and those that claim that while there are indeed moral facts, these are not independent in the realist sense (let us call these versions of "moral constructivism"). Among those theories that are versions of constructivism, versions of moral relativism are of special interest to us.[51] Relativists could, for example, claim that moral judgements can be true or false, but that they are so only in relation to a certain group of individuals, such as a culture. As we have seen, many of the statements regarding the value foundation that have been presented so far have been, at least likely candidates for being interpreted as, expressions of moral relativism. For example, Hörnqvist and Lundgren have stated that "[i]nalienable values are those values that in a given culture circle hold under all circumstances. They make up the collective moral backdrop of the citizens, and really need no justification through goal-oriented arguments" (Hörnqvist & Lundgren, 1999, p. 10, my translation). At least at first glance, it seems reasonable to interpret this as an expression of relativism, since they define inalienable values relative to a given culture circle, rather than, e.g., as those values that hold no matter what, or as those values that cannot rationally be rejected, or some stronger definition, not relating them to a group of people.

Sanger and Osguthorpe note that

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[50] But, since it is a special case, this is not very surprising. Indeed, had it been more popular than realism in general, there would have been great reason to suspect that some of the respondents did not understand the questions, since to accept moral realism is to accept realism (but not vice versa), if we by realism denote the idea that there is at least *something* that exists out there, independent of any minding of it.

In their survey of the views of philosophers, Bourget and Chalmers (2014) found that moral realism enjoyed the support of 56.4% of the respondents, its alternatives in the survey being moral anti-realism (27.7%) and other (15.9%).

[51] It should be noted that it is contested whether moral relativism, in itself, is in opposition to realism or not, and there are those that claim that there are relativist versions of moral realism. Others, for example Blackburn (2002), explicitly claim that both idealism (by which is often meant the same as what I mean by "constructivism") and relativism are in opposition to realism. Anyhow, there are versions of constructivism that are also versions of moral relativism. I shall not concern myself any further with this here.

there is an extensive amount of agreement on a range of the central characteristics of the moral domain, or our moral discourse and practice […] For example, it seems that moral discourse (in part) makes claims that purport to have (or imply) some kind of universality, impartiality, objectivity, in providing practical guidance that is over-riding and non-optional. (Sanger & Osguthorpe, 2005, p. 64)

Such a view, obviously, is more coherent with moral realism than the other views discussed above, and in fact, several parts of that understanding (e.g. regarding universality, objectivity, over-ridingness and non-optionality) have in fact been found in young people's understanding of the moral domain. (cf. Colby & Kohlberg, 1987; Colnerud & Thornberg, 2003)

Ethics and moral reasoning

In this section, definitions and the ontology of core concepts and central themes of ethics are discussed. In the data processing, these will be used to interpret and seek to understand the data, as will be evident in the results section. In the discussion section, these theories will also be used in understanding different views and possible attitudes towards the results of this thesis, and toward the value foundation of the Swedish educational system.

Normative theories: A foundation for reasoning

In the data analysis, normative theories were used in order to enhance the understanding of the material. In this section, therefore, some key elements of the field will be very roughly sketched.[52] It is interesting to note, also, that even Dewey, who famously criticized normative theory, would, I think, accept its use in understanding moral reasoning. As we shall see (in "The trichotomous distinction and prior theory" below), Dewey argued that no normative theories could provide reasonable answers to all of our moral problems, since the world is complex and ever changing, and that moral inquiry therefore is better suited for the task of providing moral guidance than are predefined theories. However, in such inquiry, normative theories might guide our understanding of the problems at hand and inform our decision processes, in his view. By analogous reasoning, I therefore think that even he could have agreed that using normative theories as is the case in this thesis makes sense, since it is plausible to use them in moral reasoning in general.

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[52] Almost all of the questions possibly touched upon in this kind of a sketch would be such that there were some current debate about at least some of their details, hence simplifications (and therefore misrepresentations) would have to be made. And there are generally no universally accepted descriptions of the positions I will present, and there are within each of them, a great number of different but kindred positions. I have tried to keep to common and fairly uncontroversial distinctions and descriptions.

Consequentialism

Let us begin this short exposé of ethical theory by discussing consequentialism, the idea that the moral status of an action is wholly dependent on its effects.[53] In other words, if an action is right or wrong is determined by its consequences, not any (other) intrinsic feature of the act. More formally, and generally, the deontic status of an action is dependent on consequences only.[54]

Probably the most widely discussed form of consequentialism is *act utilitarianism*, which is also oftentimes called *classic utilitarianism* (e.g. Crisp, 2000) since, although traces of consequentialist or utilitarianism thinking can be traced back to ancient Greece and the writings of Plato (Crisp, 2000), it was the first form of utilitarianism to be fully developed and since it was championed by Bentham (2000[1789]) and Mill (1863) and Sidgwick (1907) (Smart, 1956).[55] There exist many formulations of act utilitarianism. For example, Tännsjö holds that the best formulation of act utilitarianism holds that "[a] particular (concrete) action is right if, and only if, in the situation, there was nothing the agent could have done instead such that, had the agent done it, the world, on the whole, would have been better" (Tännsjö, 1998, p. 31). Elsewhere, he has stated that according to (hedonistic) utilitarianism, "an action is right if and only if it maximises the sum total of happiness in the world" (Tännsjö, 2011, p. 50).

When discussing utilitarianism, some further distinctions are of importance. First, we need to distinguish between several forms of act utilitarianism, depending on whether the weight is given to actual consequences or expected consequences. In the first view, what determines the moral status of an act are the consequences that in fact are a result of it, and hence, the right–makers of an act are temporally distant from it (some potentially very far from it), since consequences are subsequent to an act. Hence, in many views about time and certainty, it is only in hindsight that it can be known what moral status an act really had. In the second view, the expected consequences version of utilitarianism, the status of an act depends on the expected consequences of an act (rather than the actual ones that will subsequently occur). Hence, the right–makers of an act are temporally prior (or at least contemporaneous) with the act itself. For example, say a teacher decides to take some extra time after school to help a

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[53] Smart (1956, p. 344) claims that "Utilitarianism is the doctrine that the rightness of actions is to be judged by their consequences." He furthermore clarifies that how we define "actions" gives rise to different forms of utilitarianism. I would not agree to the first part of that definition, but instead hold it to be a formulation of consequentialism, and that to obtain utilitarianism, one needs to explicate "consequences" in terms of "utility," and then that how utility is further understood produces different forms of utilitarianism, again, for example hedonism or preferentialism.

[54] The careful reader notes that I do not write "on the consequences of the action," because the deontic status might depend on consequences of the action in question as well as the consequences of other actions (e.g. those that the agent could have done instead). And defining in terms of "deontic status" instead of "right" or "right and wrong," means that more moral predicates might be applicable, such as forbidden, obligatory, etc. (cf. Peterson, 2012). It is still common, though, to define consequentialism (and utilitarianism), in terms of "goodness" or "rightness," instead of the more general "deontic status." For example, Lenman (2015, p. 343) writes: "By 'consequentialism' I mean the view that the rightness of an action or, more generally, let us say, a policy, is a matter – entirely a matter – of the goodness of its consequences."

[55] Although there are those that would not accept this picture. For example, Jacobson (2008) claims that while Mill was actually a utilitarian, he was not a consequentialist, therefore rejecting the above stated view that utilitarianism is a form of consequentialism. Hence, he also claims that Mill is not a classic act utilitarian, although Mill is commonly viewed as one of the prime examples of an act utilitarian.

student with some homework, and the student thereby comes to get a higher grade in the final exam, which makes the difference in the student getting into the university programme of her choice. A year later, when in a university class, the student is killed in a fire, in which she obviously would not have been killed if she had not gotten into that programme, which she would not have if she did not get the help that day. In such a case (if we, for the sake of making the point, simplify the utilitarian calculus) an actual consequences utilitarianism would entail that the teacher's action was wrong (since in fact, the student passed away as a consequence of the teaching situation, albeit a year later), while in an expected consequences version, it would have been correct, since the teacher did not anticipate (and reasonably could not have anticipated) that the death would occur, but more reasonably could assume that helping the student with her homework would benefit her.[56] Hence, the two versions of utilitarianism can, in many cases, assign diametrically different moral statuses to the same act.

Beyond the distinctions made above, it is also of significance to distinguish between different definitions of "utility" often proposed in the literature on utilitarianism, which yields some different forms of utilitarianism. The form often considered the classical one is the view called hedonistic utilitarianism, according to which "utility" should be understood as happiness (Tännsjö, 2011). The version of utilitarianism known as preference utilitarianism instead consists in defining utility as preference satisfaction, meaning that what is morally good is the maximisation of the satisfaction of preferences (Hare, 1981). While there are other forms of utilitarianism as well, these are the two found relevant for the present study.

Kantian ethics and duties

One of the most well-known, yet one of the most difficult to understand, ethical theories is the ethics defended by Immanuel Kant (1988; 1991; see also 1788). Most have taken it to be a form of duty ethics, often called deontological ethics, and I will follow that tradition here. As such, Kant's ethics stands in direct opposition to consequentialism and utilitarianism. But there are those, for example Hare (1997), who believe that Kant might have been a utilitarian, or at least that this is how we should make sense of Kant today. To more truly understand Kant's reasoning behind his position is a great endeavour that I will not undertake here. The basics can be quite easily sketched, though, and that is what I will do.

One of the pillars of Kant's moral philosophy was his categorical imperative, a principle of moral rightness which is fundamental to his deontological ethics. This principle was also used in the analysis of some of the data relating to the varieties in students' moral reasoning. Sometimes, it is formulated as follows: "Act only according to that maxim by which you can at the same time will that it should become a universal law" (Kant, 1988, p. 268). According to Kant, immorality involves a violation of the categorical imperative and is thereby irrational.

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[56] See Adams (1976) for a more thorough discussion of these kinds of approaches toward utilitarianism, as well as a discussion of the place for motives in utilitarianism. See also Feldman (1993) for a critique of Adams' position. The last remark above, about whether she reasonably could have anticipated that the student would be killed in the fire highlights a problem for the expected consequences version of utilitarianism, namely: what expected consequences are relevant to the moral status of an act? Those that the agent chose to act based upon? Those that the agent currently had in mind when acting? Those that the agent could be said to know about, had the agent only thought about it? Those that the agent could have thought about? Those that the agent should have thought about (according to some standard of reasonable moral deliberation and common sense, for example)? Those of an ideal observer?

Johnson (2014) has considered this formulation of the categorical imperative to recapitulate a certain procedure for moral reasoning. He describes the first three steps of the procedure, as he understands them, as follows:

> First, formulate a maxim that enshrines your reason for acting as you propose. Second, recast that maxim as a universal law of nature governing all rational agents, and so as holding that all must, by natural law, act as you yourself propose to act in these circumstances. Third, consider whether your maxim is even conceivable in a world governed by this law of nature. (Johnson, 2014, #5)

If a maxim fails to pass the third step, the negation of the maxim is a perfect duty (one that must always be followed). And it is commonly held that this principle does not depend on the consequences of actions, as normally understood, and hence Kant's ethics is not a form of consequentialism. Instead he holds that some acts are duties that one ought always to perform, while others are forbidden. As we shall see in the results, some students seemed to reason based on perceived duties, and some even used reasoning similar to Kant's hypothetical, and quite theoretically complex, reasoning in the interviews.

Another principle of importance for Kant's deontological ethics, but also, as we shall see below, for other influential theories, is the principle that one should never treat another person only as a means, but always as an end in itself.

Moral rights

There are several normative theories that are based upon a notion of moral rights, one of the most well-known having been developed by Nozick (1974), which takes its departure from ideas from Locke (Scanlon, 1976) and also Kant, in particular Kant's principle that one should never treat another person only as a means, but always as an end in itself (Exdell, 1977; Nozick, 1974). From this principle, Nozick argues that our basic moral rights, such as the right to one's own life and one's body, can be derived. In Nozick's view, these rights function as side constraints: they limit what agents can (morally) do, since it is not morally acceptable to violate another person's rights, even though doing so would benefit some other moral good, such as equality or happiness.

When discussing moral rights, I have taken notice of the distinction between positive and negative moral rights, the first being a right to be aided, the second being the right not to be harmed, roughly speaking (Nozick, 1974; Kamm, 1986). Nozick would not accept the existence of positive moral rights, since such rights would (possibly) violate negative moral rights, but other rights theorists might. One commonly defended negative right is the right to one's own body, what is often called self-ownership, and which means that one can do whatever one wants with oneself, as long as one does not violate the corresponding right of anyone else (Tännsjö, 2011). An example of a positive right is the view, common in Sweden, that children have a right to education, in the sense that we, as a society, have the obligation to make sure that the child gets her education. That such a positive right is existent is quite widely held in Swedish society. In the interviews, as we shall see below, some students reasoned based on negative rights, such as that innocent people should not be harmed.

Virtue ethics and the ethics of care

For virtue ethics, which can be traced at least to the ethics of Aristotle, the question of what is a virtuous person is more fundamental to ethics than is the question of what constitutes right conduct (McDowell, 1979). Indeed, the latter is often answered by virtue ethicists by claiming that right conduct, or right action, is the action that a virtuous person would perform (Johnson, 2003). For Aristotle, it is not sufficient that an agent performs an action that is in accordance with virtue, she must do it *from* virtue, she must do it in the way that virtuous people would do it (Audi, 1995). This is quite similar to how Kant thinks that it does not suffice that an agent acts in accordance with duty, but that she must act *from* duty, for the reason that duty demands that action. This cognizant acting requires knowledge on the part of the agent, and hence, a virtuous person is often considered to have the ability to discern right from wrong in practical situations (McDowell, 1979; Slote, 1982), although this ability might not be possible to explicate to theory or to some proposition, it might be some kind of tacit knowledge (cf. Polanyi, 1958). Hence, students who claim that one should just be nice or kind to each other, and say that one just knows in the situation what that is, might be giving voice to this kind of virtue ethical reasoning.

As noted by Sander-Stadt (2006), the ethics of care is sometimes regarded as a version of virtue ethics (e.g. Halwani, 2003; Slote 2004), and sometimes not (e.g. Noddings, 1984). In any case, care ethics has been quite influential in the last 30 years of moral theorising, as has (also) virtue ethics (in general) (Slote, 2004). The modern roots of care ethics date back to the 1980s, while those who see care ethics as a special type of a feminist ethics tend to think that it dates back to at least the 18th century, and those seeing it as a (special case of) virtue ethics sees its roots going back to ancient Greece. Although there is a lack of consensus on how to understand care ethics, including a difficulty of finding consensus on definitions of such central terms as "care" itself, a main idea in care ethics is that (the relation, diposition, virtue or value) of caring is central (or fundamental) to moral life. We can understand a caring relation as roughly a relation in which one person sees to the needs or interests of another, and some theorists add that the second person must not be able to fulfil these needs and satisfy these interests him- or herself (in order to separate care from service), while others claim that there must be an emotional engagement in order for there to be caring. A further venture into the details of care ethics seems unnecessary for the present purposes.

Further remarks

The idea of moral desert is commonly found in everyday morality (Feldman & Skow, 2015; McLeod, 2013). For example, it is quite entrenched in common thinking about morality that effort deserves some kind of reward while wrongdoing deserves some kind of punishment. Many seem to think that when someone gets what she or he deserves it is just, while the opposite is unjust. For example, it is unjust that someone innocent who is suffering does not get compensation. Many even seem to think that it is good when someone gets what he or she deserves, while it is bad when the opposite happens (McLeod, 2013). This latter kind of thinking is often also ascribed to Kant (1991), who is held to consider legal punishment correct for reasons not easily grasped, but related to the view that it is wrong if wrongdoing

goes unpunished, but good if someone who has done something wrong is punished with suffering, also stating, for example, that a thief deprives him- or herself of the right to property (Walen, 2015). Sometimes, he seems to think that if some wrongdoing goes unpunished, the whole of society is thereby harmed, and that this can only be made right if the guilty person is punished. But moral desert has also recently been defended in a consequentialist framework, for example by Feldman (1995; 2009). Hence, it is not easy to say that simply because a student reasons based on moral desert, she must implicitly be defending one or another normative theory, there might be several of them that are consistent with the idea of moral desert.

Moral reasoning

From what has been described above, we can now turn our attention to moral reasoning. I have dealt with the term "moral" above, and will now focus on the term "reasoning." In order to explicate what I mean with "moral reasoning", I will utilise two distinctions. First of all, we must distinguish between the usage of the term "reasoning" to denote mental activities (thinking), on the one hand, and expressions (e.g. spoken or written) on the other. I will primarily mean some kind of expression of ideas, statements, judgements, etc. when I use the term "moral reasoning", and here use the expression "moral thinking" to denote the other sense. But two things should be said about this.

First, I do think that the moral reasoning, in the sense of expressions, in the case of this study, gives reasons to infer things about the students' moral thinking. There is a rich philosophical discussion about whether, and how, we can gain knowledge about other people's minds and thinking (including such fundamental questions as whether we can know that other people have minds[57] at all (Hyslop, 2016)) that I will touch upon in relation to interpretation theory, but I will shortly mention here. Given abductive reasoning (see "Abductive Reasoning"), realism and the so called "analogy argument", together with our collected body of data regarding other people's behaviour, it seems that we are justified in drawing the abductive conclusion that other people indeed have minds, and thereby that their speech (and other behaviour) gives us reason to conclude things about their thinking, under certain conditions, such as that I have no particular reason to believe that they have reasons to try to fool me into thinking that they are thinking something else than they in fact are.[58] I deal with such conditions in the methods section, and argue that many such potential worries are not particularly relevant in this case. Hence, I think that the students' moral reasoning (i.e. in the expressions sense) gives fairly strong reasons for believing things about their moral thinking.

Second, I think that even if we do not take moral reasoning to say something about moral thinking, there are important reasons to study moral reasoning. Especially in the case of democratic societies like the Swedish one, the moral reasoning of the students will have an

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[57] Other people could, for example, be elaborate machines. Some kind of philosophical behaviourism (cf. Graham, 2015) is one suggested way of solving this problem (Hyslop, 2016).

[58] We could get further support from theories within the philosophy of language such as those of Grice (1957, 1969) and Searle (1983), to further strengthen the link between expression and thinking, which I will describe no further here.

impact on their lives and their societies, i.e. their moral expressions and speaking will have an effect upon people around them and their society (regardless of whether or not this speech has one or another relation to their moral thinking).

Let us now turn to the other distinction regarding how to use the expression "moral reasoning." In a thin sense, it could be used to denote only such moral speech that included reasons or arguments for moral claims, judgements and conclusions. I will instead use it in a broader sense to also include plain moral statements, judgements, values etc, even if these (in the particular context) are not given any justification. Hence, it would be a case of moral reasoning (in this broader sense) to state that "eating meat is wrong", even if it would not include any argument or reasons in favour of the judgement (such as "producing meat is, on the whole, harmful to the environment and causes extensive suffering for the animals in the meat industry.")

Ethics in education

In this section, I will more thoroughly present the three approaches to ethics in school briefly described above, and relate them to some of Dewey's theories on ethics, as well as providing some critique of the distinction and an alternative distinction.

Three approaches to ethics in school

As we have seen above, the support behind the idea that ethics is of paramount concern and importance to education is vast. But, when using the phrase "ethics in school', one could refer to many different concepts. And this ambiguity is likely to hamper the scientific study of ethics in school, to cloud the efforts of policy making concerning ethics in school, and to impede working with ethics in school, both on the part of the teachers as well as the students, as we shall see below. Indeed, Sanger and Osguthorpe (2005) claim that while a wide-ranging field of research, the subject of moral education does not enjoy clear and widely accepted definitions of key concepts. Instead, "one is confronted with a number of distinctions used to analyse various approaches to the practice of moral education […] as well as approaches to the study of moral education and development" (Sanger & Osguthorpe, 2005, p. 57). Furthermore, there is a plethora of ways to conceptualise ethics in general, and this might be the reason why there is "so much use of the multiply ambiguous term 'approaches' to refer to work on moral education, commonly without specifying whether one is referring to the variety of philosophical, pedagogical, psychological, or historical approaches taken to inquiries in this domain" (Sanger & Osguthorpe, 2005, p. 57). They agree that this makes researching this field difficult, and it also make teaching and educating in ethics difficult, and that "explicit and systematic theorising of [this field] provide a basis for needed progress" (Sanger & Osguthorpe, 2005, p. 68). They conclude that trying to make different approaches explicit and clear is an important, or perhaps even necessary, activity to further the research in moral education, and that such an explication of different approaches should create an

"understanding [of] what they are based upon, and how they relate to, can be distinguished from, or may be preferable to, other approaches" (Sanger & Osguthorpe, 2005, p. 68).

There are several ways of trying to characterise and distinguish between approaches to moral education, or ethics in school. Some distinguish between direct and indirect approaches, the former being characterised by direct opportunities for the students to engage in discussion and thinking about ethics, while the latter being characterised by instilling virtues by modelling moral behaviour, reading about virtuous characters, performing morally praiseworthy actions, and so on (Sanger & Osguthorpe, 2005). Others distinguish between traditional and progressive approaches, where traditional approaches are focused on preserving traditions in the moral domain and of turning the unruly child into a societal being, while the progressive approach is more concerned with freeing the individual from the indoctrination of society, either to let her develop her natural good self (as for Rousseau) or to develop her own moral reasoning abilities (as for Dewey) (Carr, 1998). This distinction between traditional and progressive is also used by others, e.g. Thornberg & Oguz (2013), although they add a third kind of approach, as we shall see further below. Strangely enough, then, Sanger and Osguthorpe (2005) claim that there is a strong similarity between traditional and direct approaches, on the one hand, and progressive and indirect, on the other. But this is strange, because Lipman's approach, e.g., would, I think, be a direct but progressive approach. Irrespective of that, Sanger and Osguthorpe consider these distinctions to be inferior.

Presenting their own distinction, Sanger and Osguthorpe (2005) first claim that an approach to moral education can differ along the following dimensions: methods of instruction, curricular materials, programmatic ends and moral content. They further discuss other dimensions that an approach to moral education might differ in, namely its psychological assumptions, its moral assumptions (both metaethical and normative), its educational assumptions and contingent factors (such as social, political, etc.). Now, they discuss the claim that is sometimes made that moral education should be value neutral, but give the following objection towards such theorists:

> [Such theorists] resist or denounce espousing things like specific conduct, such as 'always tell the truth'. Rather, they focus on processes and/or more general principles to be fostered. But these elements clearly contain or imply moral content, because the processes and principles supported do have practical implications for what morally good agents are like, what they should be sensitive to, and how they live. Thus moral content and programmatic ends influence or constrain each other, but are not identical. (Sanger & Osguthorpe, 2005, p. 62)

They here make a kind of move that is very common in the research literature on moral education, and thus I will return to it below. But in short, I think that they make a mistake in believing that moral education must include what I call value transmission, and they make this mistake because they fail to see the distinction that Lipman draws between substantial values and procedural values, and that I extend to substantial fostering (or transmission) and procedural fostering (or transmission), as discussed below. Hence, I think that while highly valuable, their distinction is not fundamental enough, since it seems that all different approaches to moral education, according to their framework, would be versions of the

approach I call the value transmission approach. But I will show that there are alternatives to that approach, and also discuss whether these are compatible with each other, and so on.

I therefore make a distinction between three different approaches to ethics in school, which I have outlined and defended elsewhere (Gardelli, 2011; Gardelli et al., 2014),[59] and this will be used, among other things, in the data processing to facilitate a more nuanced understanding of how ethics is prescribed in the national curriculum, as will be presented in the results section. I consider it fruitful[60] to distinguish between what I call *the descriptive ethics approach*, *the value transmission approach*, and *the inquiry ethics approach* to ethics in school. I will now first present them, and then discuss their relation to each other, as well as to other proposals in prior research.

In any case, I will in the following paragraphs briefly sketch an outline of the three approaches I distinguish between.

The descriptive ethics approach

According to the *descriptive ethics approach* to ethics in school, education should focus on the learning of social facts about people's ethical behaviour and facts about how people reason in morals, and so on (cf. Myyrya, Juujärvi, & Pesso, 2010). For instance, this could consist of learning about what opinion most people in some specific group in society have about some moral issue, such as recycling (Williams et al., 2008), or whether we ought to undertake research into using nuclear power (Cerutti, 2010). Doing ethics in school could also consist of studying how teenagers consider electrical cars; whether young people are more positive to surveillance technology than older people, and so on. Hence, the descriptive ethics approach would be best characterised as a sociological or descriptive approach to ethics (Copp, 2006), and the goal of the school regarding ethics would then be teaching (or helping the students learn) social, statistical, psychological, or sociological facts about moral issues (cf. Albert, 1957).

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[59] In the earlier presentations (Gardelli, 2011; Gardelli et al., 2014), the distinction is drawn and defended, and then three influential arguments for including ethics in school are discussed for each of these approaches respectively, thereby assessing each of these three approaches, and the interested reader might find those valuable since they keep that discussion in one place, while it figures in several different parts of this thesis.

[60] But, of course, one could propose other distinctions, and one could analyse in terms of other aspects of ethics in school, as discussed above. And within what according to my distinction is one and the same approach to ethics in school, one might make further distinctions and categorise by more fine-grained properties. For example, several different approaches could be seen as a value transmission approach, for example those that are secular versus those that are theological. And one might focus on other features than those that I do. Some distinctions might prove useful, while others might not. Nonetheless, distinguishing between the three types of ethics in school that I do seems to have some utility, and that is all that is needed right now. It should also be noted that these are not jointly exhaustive, neither are they (obviously) logically exclusive. I will return to this last point in the discussion.

The value transmission approach

According to the value transmission approach[61] to ethics in school, which is frequently defended (Covell & Howe, 2001), the aim of the school is to mediate some pre-defined substantial values to the students. The value transmission approach can be expressed in many different ways. The following statements will all be categorised as expressions of the value transmission approach: "school has the obligation to transmit the values of society to students" (cf. Cookson, 2001), "school should teach students what is right and wrong," or "school should foster students into having some virtues like being caring or respectful to others or to perform certain actions (e.g. buying eco-friendly cars) or not perform certain actions (such as lying, posting private information about others on the Internet, or travelling excessively by airplane)" (cf. Berkowitz & Grych, 1998; Gardelli et al., 2014; Mahowald, 2004).

I use the term "transmission" in a rather narrow sense here, as some kind of straightforward transmission of values. One could argue that all education is transmission in some sense, but this would be using "transmission" in a broader sense than what I am doing here. Moreover, value transmission has similarities with some views that are sometimes called "character education" (Althof & Berkowitz, 2006; Winton, 2008), but due to there being many rivalling definitions of character education (Davis, 2003), I use the expression "value transmission" as here explained. Also, there are those who use the term "moral education" in a narrow sense to mean something similar to what I here call "value transmission" (Schuitema, ten Dam, & Veugelers, 2008), but this term is also often used in a broader sense to include different efforts to educate in, or in relation to, ethics or morals, as we have seen.

As is evident in the writings of Sama and Shoaf (2008), value transmission is of relevance for many contexts, not only education. The idea of value transmission as one of the aims of education has very long roots in western societies. Hogan (2010) states that these ideas are evident in Plato and Aristotle, and after that gained importance in the Roman empire, then for a long time were upheld by the church and its understanding of education as a means of mediating religious doctrines to the students, and thereafter being an important part of states' wishes to cultivate their young ones into doctrines such as nationalism, patriotism, utilitarianism, socialism or liberalism.

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[61] In the paper "Why philosophical ethics in school" (Gardelli et al., 2014), this approach was called "the moral fostering approach." But that name has some drawbacks. First, it is ambiguous in the sense that it might mean than (i) the fostering is moral in some sense, that it is some kind of ethically approved fostering, or (ii) that it is fostering in moral matters, that school tries to foster students to be in a certain way with regard to morality, the second one being the one intended. The second drawback is that it is not clear from the term "fostering" that a quite straightforward and direct transfer of predefined values was intended, because fostering can also be indirect. Probably, I made the mistake of using "fostering" in this sense partly due to the fact that I am a non-native English speaker, but even in Swedish, "fostra" is not unambiguously used for denoting the kind of straightforward transmission that the approach consist of. I think that "value transmission" better captures the essence of this approach to ethics in school.

The inquiry ethics approach

According to the inquiry ethics approach[62] to ethics in school, school should help students learn to reason about ethics and to be able to think (critically) about ethics (cf. Veugelers, 2000). The aim is to help students evaluate different moral standpoints, to evaluate the strength of various arguments, to distinguish between different ways of ascribing value, and so on. Hence, according to the inquiry ethics approach, the primary focus should not be set on learning what most people believe is right or on making sure students accept some predefined set of values, but rather on reasons for holding something to be right; on arguments for whether this or that position is correct; on ways of critically examining moral positions and on thinking about ethics in a more independent way (Barrow, 2010). If the inquiry ethics approach was taken, ethics in school would consist of the students engaging in normative ethics and applied ethics, but to some extent also metaethics (Scanlon, 1992). The idea of *engaging* is of great importance here because it is not so much a question of teaching students theories about normative ethics – which would rather be a question of having the descriptive ethics approach – but rather of the students themselves *doing* normative ethics (or metaethics) in the sense of engaging in trying to answer the moral questions themselves, of scrutinising different arguments and positions, and so on.

As we have seen, thinking skills are crucial to the inquiry ethics approach. The ability to think critically about ethics is one such thinking skill that could be emphasised (Lipman et al., 1980). The aim could be helping students evaluate different moral standpoints, to evaluate the strength of various arguments, to distinguish between different ways of ascribing value, and so on. Hence, the primary focus should be reasons for holding something to be right, arguments for whether this or that position is correct, ways of critically examining moral positions and ways of thinking about ethics more independently (Barrow, 2010). An open dialogue, where views can be compared and confronted in a respectful manner, striving to reach towards better understanding and possibly consensus, is reasonably an important feature of this approach. Such an approach is sometimes referred to as a "deliberative dialogue" (cf. Englund,

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[62] In the paper "Why philosophical ethics in school" (Gardelli et al., 2014), this approach was called "the philosophical ethics approach," and I have contemplated using several other labels for it, including "critical ethics," "deliberative ethics," "reflective ethics," etc. I think that "inquiry ethics" is a suitable label since it makes it quite evident that the focus is on some kind of inquiry about ethics – and such an inquiry could be carried out by oneself or together with others. The problem with using the terminology philosophical ethics is that, as noted above, in a philosophy course, for example, some focus would also be on studying what prominent thinkers throughout history have said about ethics, and that would be a special case of descriptive ethics (in the sense I am here using the term), while focus would also be on doing what here is called inquiry ethics. What I here call inquiry ethics might actually be closer (in some regards) to philosophical research (albeit on a lower level), and hence it would be a bit uncertain what was meant by philosophical ethics – that which more resembles typical philosophy education, or philosophy research? Deliberative ethics is quite vague, and there might be several ways of deliberating, two important ones being political deliberation and philosophical deliberation. The political deliberation (by which I here mean a situation where people come together to make a decision together) is not the kind of deliberation we are interested in here for several reasons. Such a deliberation could consist in finding a compromise, voting or finding a consensus, where such things as rhetoric might play a part – which is not what inquiry ethics is about. Moreover, inquiry ethics doesn't have to be conducted by several people together, but political deliberation seems to necessarily involve more than one person. The sense in which inquiry ethics is concerned with deliberation is in the sense of philosophical deliberation, and in that case it is better to use the label "philosophical ethics" in the first place. The label "critical ethics" is that "critical" is ambiguous and sometimes means "negative," which is not at all what this approach is about, and also that it might be thought to be connected to what is sometimes called "critical theory," which is not what this approach is about either. And, lastly, "reflective ethics" was not used because I have not been able to find a consensus within educational research of a definition of the term "reflective," but instead it oftentimes seems void or deeply unclear in meaning.

2000), although these ideas had already been put forward by Lipman from the 1970s and onwards (Lipman, 2003; Lipman & Sharp, 1978; Lipman et al., 1980), maybe even in the 1960s (Juuso, 2007), and some of it can be argued to be found in the writings of Dewey and Mead (Juuso, 2007). This way of dealing with ethics has been argued to be in accordance with educating students in democratic citizenship (Englund, 2000). And Frímannsson (2016) notes that the development of reason as an educational goal has been endorsed by practically every main philosopher of education and educational theorist. A prominent type of inquiry ethics approach to ethics would be the philosophy for children, or philosophy with children, approach(es) to ethics in school (Lipman, 2003; Lipman et al., 1980).

It should be noted that in processing the data from the curriculum, the above characterisation of inquiry ethics was extended to included communicative skills. This was done because, as shall be evident below, such abilities were prescribed by the curriculum – and it seems evident that they should be connected to the inquiry ethics approach, for several reasons; first, they most closely resemble the thinking skills (for some theorists, they are even inseparable (Fisher, 2007)), and second, because communicative skills is also central to the inquiry ethics approach, bot in terms of it being an aim and a focus of practitioners (Alexander, 2005; Lipman, 2003), but also because it has been shown that participation in inquiry ethics education promotes communicative skills, as we have seen (e.g. Alexander, 2005; Gorard et al., 2015; Nilsson et al., 2015; Topping & Trickey, 2007a; 2007b), and third, because communicative skills is not closely related to either the value transmission approach or the descriptive ethics approach. But, this is more than has been assumed thus far about the inquiry ethics approach, and hence, this means that not all those approaches that would fall under the inquiry ethics approach as understood in the rest of the thesis can be said to necessarily be fully relevant to the results that will be presented, although the importance of the communication skills as compared to the rest of the content related to the inquiry ethics approach is not that extensive.[63] Nonetheless, there are indeed notable versions of the inquiry ethics approach that indeed meet these conditions as well, since they put emphasis on the development of communicative skills as well. One such is the philosophy for/with children approach discussed earlier (see "Monologic and dialogic education"). Hence, there are versions of the inquiry ethics approach that can fully meet this extended version of the inquiry ethics approach that is here being used.

On the compatibility of the approaches

Let us now turn to the compatibility and coherence of the three approaches to ethics in school, and ask if on the one hand if they are indeed discreet or if some of them collapse, and on the other hand if they are compatible or if they are contradictory. A more thorough examination would be beneficial, but this will be left for future research. We are here concerned with the question of whether it is possible in practice to combine these in school, under normal circumstances. Let us return again to some of the core features of the different

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[63] It should be kept in mind that this speaks in favour of versions of the inquiry ethics approach (in the thinner sense) that include such communicative skills (and hence are also instances of an inquiry ethics approach in the thicker sense). I will return to this in the discussion section.

ways of dealing with ethics, and scrutinise the role of the teacher and the students in the different educational settings that arise for each of the ways of having ethics in school respectively.

Nucci (2006) states that mainstream character education in the United States is about creating "nice people" (p. 660), but argues also that the possible moral shortcomings within the current social consensus are examined less when education is concerned with mediating a set of inalienable values, aimed at goals such as kindness and orderliness, which are already accepted by the society. Winton shares this view, in noting that traditional "character education's emphasis on shared values, for example, teaches that conformity is desirable [… and] perpetuates the status quo" (Winton, 2008, p. 305). Effects of the difficulties in fostering students to both respect others' opinions and, at the same time, calling these into question may be evident in a report by the Swedish National Agency for Education (2010) that acknowledged that two thirds of 14-year-old Swedish students refrain from expressing their points of view when these diverge from those of their classmates. Hence, there are preliminary reasons to fear that not all of the approaches are fully compatible.

The basic point of descriptive ethics in school is that students should learn social facts about ethics. Hence, the role of the students is to learn social facts, which could be accomplished by acquainting oneself with information from textbooks, other media, and the teacher, and possibly also by conducting some kind of study oneself, for instance by asking people about their opinions. According to this approach, the role of the teacher is mainly to teach social facts to the students, providing them with authoritative material and information about the ethical landscape of society, and possibly helping them carry out empirical studies.

Value transmission, on the other hand, means that the students shall be caused to uphold certain predefined substantial values and ideas, and that they should be fostered into accepting a certain value system. The role of the students, hence, seems to be to accept the values that the school mediates and incorporate them in their value systems. This is a passive role, and it is mandatory. The role of the teacher correspondingly is to transmit or mediate the given values to the students.

The main aim of an inquiry ethics approach is that students learn to reason themselves about moral matters, that they learn to discern between different perspectives, and that they develop their own ability to make independent judgements. The role of the students, then, is to think for themselves, to critically examine views that are put forth and things that they are told, and to develop their independence. This is an active role. The role of the teacher is to make sure that this learning takes place, e.g. by suspending his or her own judgements in order to "give room" for the student to take a standpoint, facilitating dialogues, supporting the students in forming their own judgements and possibly providing several different possible viewpoints for the students to reflect upon and take a stance in relation to (Nilsson et al., 2015).

There are some connections between descriptive ethics and value transmission, in that the teacher is an authority from which the students should learn substantial matters (although the descriptive ethics approach could be taken in a more dialogical fashion). Indeed, some would consider the two approaches to be equivalent, for example those who think that ethical value depends on social facts in some way, like claiming that "good" means the same as "favoured

by the majority" (a form of metaethical naturalism), or that the good is determined in some other way by what the majority favours (some kind of relativism), or how the culture in question is formed (e.g. some kind of communitarianism). However, for some (e.g. sceptical realists), there would be no relevant connection at all (Gardelli et al., 2014). And there are clear differences between the approaches as well. One is that the content is different in the two different types of ethics education. And even more different is the learning. In the first case, students should be involved in propositional learning, as discussed above. In the latter, contrastingly, students should not primarily come to believe something; they should instead come to be of some certain opinion, to make certain valuations, to have certain values. This distinction does not hold for all theories on what value is, though. For moral realists, value transmission would consist in making the students believe in some proposition, namely to believe that something is morally correct. But it would still be something different from the descriptive ethics approach, which holds that the learning should be of empirical (natural) propositions, while realists would hold it to concern moral propositions.[64] In any case, it might be complicated to shift from the one perspective to the other, although this is probably not a very big problem. More concerning, though, is that the value transmission project might be undermined by a descriptive ethics project in school. As we have seen, it is quite common to, in some justification of the value foundation, claim something along the lines that the values of the value foundation are in fact accepted by everyone. For example, Hörnqvist and Lundgren (1999, p. 10) state that these values can be called inalienable, and that they are those values that "in a given culture circle holds under all circumstances[, and which] make up the collective moral backdrop of the citizens, and really need no justification through goal oriented arguments." If a descriptive ethics perspective would then show that this is not the case, that these values are, to the contrary, not at all accepted by each and everyone,[65] then such a realisation might severely undermine the value transmission project. Students might ask: If everyone does not accept these values after all, then why should I? Indeed, there might be other arguments for the values we choose to include in a curriculum, and taking another path in justifying the value transmission project might help resolve this conflict between the descriptive ethics and value transmission approaches. But at least as long as the above mentioned way of legitimising the value transmission project is taken, it seems that the descriptive ethics and the value transmission approaches are problematic to conjoin. Hence, it seems correct to consider them to be different approaches, but it seems as if there are at least no obvious contradictions between them.

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[64] I am simplifying, here. With Bergström's (2004) terminology, the issue would rather be concerning what he calls "objectivism," which is a part of a lot of versions of moral realism. But some non-realists, e.g. Mackie, can be seen as defending objectivism as well, and hence would see value transmission as similar to what is described above. And for what he calls "naturalists", those believing that value sentences can be translated into (or are synonymous with, or refer to the same propositions as, or something similar) empirical (natural) sentences, the approaches could be seen as even more similar, possibly collapsing into one and the same. Nonetheless, on the surface, they would still be different, since the descriptive ethics approach would consist in learning of such stuff that would be described by sentences staring "people believe that…" or "many are of the opinion that …", while the value transmission approach would consist of a learning that would, if it would be expressed in sentences, be expressed by sentences staring "it is correct to …", "one ought to …" and so on, which, to many, at least intuitively, seem like different things.

[65] This is a question for descriptive ethicists, social scientists and behavioural scientists, but it seems as if it is indeed currently quite commonly held (cf. Colnerud & Thornberg, 2003) that these values are not as widely accepted as the above discussed formulations seem to imply, a position actually affirmed by Hörnqvist and Lundgren themselves, when they state that they perceive a growing value pluralism in society.

Turning our attention to the relation between the descriptive ethics approach and the inquiry ethics approach, there are some similarities, but also differences, between them. In order to learn about different people's views and opinions (descriptive ethics), the student must be able to see the differences and similarities between the different views, which is a skill learned in an inquiry ethics approach. That is, some thinking skills might be needed in order to carry out descriptive ethics in school. And some activities seem to be able to fulfil aims of both of these approaches. On the other hand, when engaging in learning activities aimed at developing thinking skills in ethics, the students are also encouraged to critically examine the different views, to evaluate them and scrutinise their respective merits and weaknesses. And learning about different values that people have might provide content for such critical examination, which would mean that some descriptive ethics could constitute a basis for an inquiry ethics to build upon. On the other hand, the point is only to learn what other people think, not to make valuations of one's own. It should be noted that it might be a bit difficult for students to shift between these two perspectives, e.g. between learning how many people are vegetarians on the one hand, and learning to reason about the moral status (reasonableness) of vegetarianism on the other hand.[66] In descriptive ethics, the students should learn propositions, information, facts – they should come to believe something about empirical matters, something about other people's valuations, ethical views and opinions. Such propositional learning[67] is rather typical for education, it is the learning where we learn *that* something ("I have learned *that* …"). In an inquiry ethics approach, the learning that will mostly take place is learning of skills and abilities; the students should learn *to do* something. This kind of learning is also quite typical for education: students should learn *how to* read, *how to* calculate, and in the case of an inquiry ethics approach to ethics, *how to* reason and communicate about ethics. These two kinds of learning are different. But they do not seem necessarily conflicting, just as learning *how to* read is not conflicting with learning *that* Paris is the capital of France. Therefore, it seems, at least at first glance, that descriptive ethics and inquiry ethics can coexist side by side.

The relation between a value transmission and an inquiry ethics approach is more complicated. It can be argued that value transmission depends on inquiry ethics (Crawford, 2001). On the other hand, it is questionable whether one could, in fact, practice inquiry ethics without engaging in any value transmission. Is it not so, one could ask, that students need to be made to accept some certain values for a critical dialogue to be fruitful, let alone possible? Even if that is so, this would still be some other kind of value transfer than what the value transmission approach consists of. It would be some second-order, or meta-level, value transferral, for example, fostering students into regarding a critical dialogue as meaningful, or appreciating the rules of conduct in such a dialogue. However, this differs from making students uphold substantial moral beliefs or attitudes, such as that one ought to reduce one's emission of carbon dioxide, in that this fostering is what one, with Lipman (e.g. Lipman et al., 1980), could call "procedural" fostering, since he would hold the values necessary for a

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[66] In my experience, (university) students in Ethics courses regularly have these difficulties at the beginning when studying ethics, but the same is usually not true of advanced students.

[67] By which I mean learning corresponding to *propositional knowledge* (a reader fluent in Swedish could consult (Gardelli, 2010a; 2010b)).

dialogue to be procedural values rather than substantial ones. Lipman writes that ethics in education, in his view "is concerned not to inculcate substantive moral rules, or alleged moral principles, but to acquaint the student with the practice of moral inquiry" (Lipman et al., 1980, p. 66).

Hence, inquiry ethics incorporates some elements of what might seem to be value transmission, but it is second-order values that are promoted, not first order moral values.[68] Moreover, these values themselves can be – and reasonably ought to be, according to the inquiry ethics approach – discussed in the context of a critical discussion about ethics in school. And in defending against the charge that the insistence on values or principles such as coherence, consistency or comprehensiveness is in fact a sort of value transmission, Lipman gives two arguments. The first is that this refers to *how* to think, rather than *what* to think:

> [C]oherence, consistency, and comprehensiveness are values only in the sense that they are standards for effective communication and criteria for effective inquiry. They are appropriate to the way a person should think, not to what he should think. Therefore, they are procedural considerations, not substantive ones. (Lipman et al., 1980, p. 86)

To this, one could further add that they are values regarding how to think, not how to act (although thinking can be seen as a form of acting, it is still quite obviously different from other actions). The second argument is that these values are intended to be localised to the context of a well-functioning dialogue, not to all of life itself, since:

> there are other forms of activity in which these rules are hindrances rather than aids. For example, the children may find that play need not be consistent, that the chores they do at home need not be comprehensive, and that their poetic impulses are stifled if it is demanded that they be more coherent. In other words, coherence, comprehensiveness, and consistency are appropriate values for philosophical discussion and inquiry but not for other aspects of a person's life that include characteristics of spontaneity, randomness, or routine to which the aforementioned values are irrelevant. (Lipman et al., 1980, p. 86)

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[68] T. Gardelli (personal communication) has suggested that rather than using the substantial vs procedural or the first-order vs second-order distinctions, it might be that what Lipman calls "procedural values" are not in fact moral values, but some other norms, such as etiquette or some kind of juridical (or quasi-juridical) norms, rules or values. If this is indeed the case, then the border could be drawn even more clearly, because then value transmission could be seen as the transmission of moral values, and inquiry ethics would then only need to include some kind of etiquette transmission, which would be something else than what is here being called "value transmission".

Hence, for several reasons, the use of certain values, rules or principles in an inquiry ethics approach described above would not be a case of value transmission.[69] Moreover, Lipman et al. (1980, p. 66) state that "a philosophical approach to ethics is one that stresses the method of ethical inquiry rather than the particular moral rules of particular adults." It is interesting to note that they explain the position I have called the inquiry ethics approach partly in terms of not being the value transmission approach, which is another argument that these are indeed two different approaches.

But there are further arguments as well. Understanding this distinction, we can see that it fundamentally also involves the tension between monologic and dialogic education. The value transmission approach is fundamentally monological. The inquiry ethics approach, on the other hand, is dialogical in nature, both in terms of its surface methodological aspects, but deep into its roots as well. Hence, the distinction can be further understood, and indeed also thereby justified, by drawing attention to the issue of monologic versus dialogic education.

According to the value transmission approach, teachers should take an authoritative stance towards the students in the sense that the teacher should transmit some values to the students – values that are considered absolute and non-negotiable. Consequently, the teacher cannot be genuinely questioned. If a student questions a certain value, the teacher's aim should be to make sure the student changes her views and comes to accept the value in question. The role of the teacher is unyielding. Hence, on several accounts of dialogue and dialogic teaching, as we have seen above, the value transmission approach is not compatible with a dialogic teaching approach, and hence must be paired with a monologic teaching method. Accordingly, the students should develop the perspective that the values transmitted from the teacher and the educational system should be accepted. That is, the student should learn to conform and to accept the values transmitted to them. This is a passive and receptive role, an obedient role. To the contrary, according to an inquiry ethics approach, the teacher should help the students develop their own judgements and independent thinking, which oftentimes demands that the teacher has an open attitude towards suspension of his or her own judgement (Burman, 2008; Lipman et al., 1980), and sometimes engages in the dialogue with the intent that what he or she says can, and should, be questioned and scrutinised in order to help the students learn to reason for themselves (cf. Sheppard, Ashcraft & Larson, 2011). Lipman et al. state that in these settings

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[69] In "Why philosophical ethics in school" (Gardelli et al., 2014), I, for the reasons discussed above, incorrectly stated that "Hence, PE [which would here be inquiry ethics] incorporates some MF [which would here be value transmission]." But, for reasons briefly touched upon above, that was a mistake. First of all since the values in question are higher-order, or procedural, in contrast to the substantial values typically promoted in a value transmission approach. But more importantly, since the procedural values offered can be questioned and scrutinised themselves, the intention isn't to transmit these values to the students at all. Rather, the values should (in this view) be taken as a starting point for an inquiry. We have to start somewhere, with some rules of conduct or some principles regarding how to proceed, but along the way these can be modified, if arguments for their modifications seem strong. This would be similar to how the laws or constitution of a country, or of an association, while setting the standards of conduct also, in accordance with criteria set by themselves, could be amended or revised. In such a case, the laws and the constitution dictate the procedures by which members have to act, including the rules of how these rules are to be changed (cf. Hart, 1961). The same with the rules, values or principles which govern the inquiry in the classroom; they set the standards for behaviour *in that particular activity*, including how to behave when changing the standards themselves. But they are not regarded as universal, and they have the potential of being changed. Hence, since they are seen as only temporary, it cannot be a case of value transmission, as here understood – since the aim of value transmission is to mediate values in a more robust way than as only temporary and local principles about how to think.

it is the teacher who, through questioning, can introduce alternative views with the aim of always enlarging the students' horizons […] [I]n this sense, the teacher is a gadfly, encouraging the students to take the initiative, building on what they manage to formulate, suggesting ways of arriving at more comprehensive answers. (Lipman et al., 1980, p. 83)

Hence, the inquiry ethics approach is a form of dialogic education. Accordingly, the students must learn not to accept everything that is said to them, to question assumptions and opinions put forward by others, and so on (Lipman et al., 1980). This approach therefore demands that the students take quite the opposite stance towards the teacher than does the value transmission approach.

The two approaches demand very different actions from the teacher. It might even be that the two are fundamentally inconsistent, in that it is essential to the value transmission approach that a certain set of values be decided upon, as those values that the students shall come to accept, while it might be essential to the inquiry ethics approach that it is indeed open to the students to come to a conclusion of their own about what values to accept. But there might be objections to this picture, though. Some would argue that (something similar to) the inquiry ethics approach might be the best form of value transmission – that the most effective way of making sure that the students come to truly embrace a certain set of values is to let them critically examine these and other values, and decide for themselves to accept these values. In that case, the teacher *would* have a certain set of values that she wants the students to come to accept, but simply uses a non-orthodox method for reaching that goal. But others would object that if such an approach includes the assumption that there is a certain set of values that the students should come to uphold (as is necessary for it to be a value transmission approach), then it cannot be a form of inquiry ethics approach, since an inquiry ethics approach demands that there is an openness in what the end point of the inquiry would be. And indeed, some would also say that without a fundamental openness of that sort, the likelihood of being able to facilitate the kind of inquiry here sought after is slim, since such an inquiry demands, in order to be genuine, that we actually *inquire* into these matters, that is actually investigate these matters and search for an answer, and therefore no such necessary answer could be decided upon (by any person) beforehand. If there is only one answer that one is allowed to find, it is hard to say that one is engaging in inquiry, the proponent of such a position would argue. If so, it seems that these two approaches do not collapse into each other, and that moreover they are incompatible, since there are fundamental and essential conflicts between them. Lipman would agree with the latter, stronger, claim, for example in his stating that, in his view: "a philosophical approach to ethics is one that stresses the method of ethical inquiry rather than the particular moral rules of particular adults" (Lipman et al., 1980, p. 66). Wyndhamn (2013) also claims that there is a conflict between these two approaches, and sees it as a conflict between liberating the students, on the one hand, and to discipline them, on the other. She also states that "the relationship between value transfer [what I have called "value transmission"] and the pupils' training in critical thinking [which is part of inquiry ethics] can generate tensions in schools and the teaching situation" (Wyndhamn, 2013, p. 209, additions in brackets inserted by me). She states that the overall findings of her study is that

for the majority of pupils in the study, a subject position is made available with very limited scope for criticism and questioning. The pupils' room for manoeuvre is limited mainly through articulations of an order discourse and a knowledge-reproducing discourse. For pupils, the order discourse normalises an attitude characterised by approval, docility, compliance and loyalty in relation to the school and to what the school asks its pupils to do. It is typical of pupils in the knowledge-reproducing discourse that docility and compliance are also expected to include actual knowledge content and, by the same token, the versions of the truth that it dictates. The discourses combine to place pupils in a subordinate position in relation both to the school, teachers and ways of working and to the knowledge content. When the order discourse and/or the knowledge-reproducing discourse is articulated, the pupil gets no training in questioning, critically oriented activity, nor any encouragement or persuasion to engage in it. (Wyndhamn, 2013, pp. 220-221)

This is a strong argument against the compatibility of the two approaches, indeed. And Dewey, famously, would not consider the value transmission approach and the inquiry ethics approach to be the same. In fact, the value transmission approach seems to correspond quite well to his second order of moral reasoning, the customary moral reasoning order, while the inquiry ethics approach is concerned mainly with the third order of moral reasoning, reflective reasoning, or inquiry. Hence, they are fundamentally conflicting ways of dealing with ethics.

To sum up, it seems that descriptive ethics is the approach that conflicts the least with the other approaches. The most difficult clash of approaches seems to be the one between the value transmission approach and the inquiry ethics approach. The discussions above give reason to believe that there are problems with combining the three approaches to ethics in school. It might be problematic, not to say impossible, for a teacher to fulfil all the different roles prescribed by the different approaches and needed for making each one of them work. And it might be even more problematic to do it in a way that makes it transparent for students which different demands are being put on them at different times, and what relation they are supposed to have to the teacher at different times. It might be at least as difficult for the students to make the switch between these different ways of approaching the content of education as well as the different stances they are supposed to take towards the teachers, depending on which approach to ethics in school is taken at that particular time.

The trichotomous distinction and prior theory

All these approaches to ethics in school have been more or less explicitly proposed and defended in the research literature about ethics in education (Gardelli et al., 2014). Nonetheless, it is rare that they are explicitly and intentionally distinguished between or kept apart. One exception is in a doctoral thesis written by Wyndhamn (2013), although she does only distinguish between two approaches, which correspond fairly well to the value

transmission and the inquiry ethics approaches, respectively.[70] But her distinction seems to be somewhat in between my distinction and the traditionalism vs. progressivism distinction, as discussed above. Now, the problem with this is that the value transmission approach need not be concerned with traditional values. In cases where one wants to "build a new society" or "new citizens", as e.g. the Swedish Social-Democrats oftentimes say, or as with the Soviet society or the Chinese after the cultural revolution, the values which are transmitted are not traditional values, but rather the new values that are thought to be needed for the new society that one seeks. But these would not be examples of traditionalism, and hence, there is a difference between traditionalism vs progressivism, on the one hand, and value transmission vs inquiry ethics, on the other.

Thornberg and Oguz (2013) also distinguish between three approaches to ethics in school. But their distinction is between *the traditional approach* (which "emphasises adult transmission of the morals of society through character education, direct teaching, exhortation, and the use of rewards and punishments" (Thornberg & Oguz, 2013, p. 50) in order to "discipline students to develop good character and virtues, and to conform to the dominant values, legitimate rules, and the authority of society" (Thornberg & Oguz, 2013, p. 50)), *the progressive approach* (which "emphasises children's active construction of moral meaning and development of a personal commitment to principles of fairness and concern for the welfare of others through processes of social interaction and moral discourse" (Thornberg & Oguz, 2013, p. 50), with "[r]easoning and explanations, deliberative discussion about moral dilemmas, and participation in decision-making processes […] as typical methods" (Thornberg & Oguz, 2013, p. 50)), and *the critical approach* (which claims that "moral influence in school, especially in the practice of school discipline and in hidden curriculum, can be questioned and has far-reaching effects without being noticed" (Thornberg & Oguz, 2013, p. 50)). They also claim that among the aims of the progressive approach is "to promote moral autonomy, rational thinking, moral reasoning skills, and democratic values and competence among the students" (Thornberg & Oguz, 2013, p. 50). Now, it might seem as if that approach, then, is the inquiry ethics approach, but, it is a mixture of the value transmission and the inquiry ethics approaches. Moral autonomy, rational thinking, moral reasoning skills would all be aims of the inquiry ethics approach. As we shall see, among what can be called democratic values there might be both substantial and procedural values, and democratic competences would clearly be something that the inquiry ethics approach could aim to teach the students. But "commitment to principles of fairness and concern for the welfare of others" are, no matter how praiseworthy these values might be, substantial values, and aiming to transmit these to the students, therefore, is contrary to trying to educate for the moral autonomy of the students. In their description of the critical approach, there are also those versions that would here be classified as value transmission

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[70] My drawing this distinction is independent of her work, which I actually first became aware of through her presentation at the conference where I first publicly proposed my distinction (Gardelli, 2011). She, in the doctoral thesis, studies the Swedish upper secondary school, and draws a distinction between what she calls "value transfer" and "critical thinking." She further claims that these can be seen as the results of a power struggle between two political efforts; between integration and change, between disciplining and liberating. The present thesis is not concerned with any alleged underlying explanations of any of the approaches.

approaches, and those that would be inquiry ethics approaches. Hence, Thornberg and Oguz's distinction is not the same as the one drawn and used here.

Lipman (e.g. Lipman et al., 1980) is clearly aware of the distinction between value transmission and inquiry ethics, as I will discuss below. Dewey makes a distinction between different orders of moral reasoning, out of which two of his levels bear interesting relationships to the value transmission and the inquiry ethics approaches, respectively, as will be discussed below. But it is important to note that Dewey here speaks of "orders of moral reasoning", not of approaches to ethics in school or moral education, and hence, his distinction is something different. There are also interesting parallels to the levels of moral reasoning proposed by Hare (1981), although, as with Dewey, Hare is not concerned with education, *per se*.

Since this thesis is concerned with value transmission and inquiry ethics, as described above, it is reasonable to discuss some ideas from John Dewey, since his thinking on these matters has laid a foundation for a lot of the pedagogical theories over the past 100 years, and indeed also his thinking on dialogic education. While Dewey did not speak of value transmission and inquiry ethics in the same context as I do, I think he would have had something to say that has a bearing on this current discussion. In *Ethics* (Dewey & Tufts, 1908), Dewey[71] speaks of three orders of moral thinking, the higher orders being more sophisticated and cultivated. The second of these is what he calls *customary morality*, and which he sees as inferior to the third order of morality, which corresponds to the moral thinking where we deliberate about moral matters. Dewey considers the second order, which is the customary morality (it can also be called "mores" or "customs") to be important to our moral lives, indeed, but he also believes that it cannot suffice as our only mode of moral thinking because it is unintentional and unreflective, and hence cannot facilitate adaption to new situations; it is merely a habit (Dewey & Tufts, 1908). Therefore, the third order of moral reasoning is required. Engaging in moral deliberation is the only way in which we can make moral progress and handle new situations and an ever changing moral environment, according to Dewey. I believe that I share this interpretation of Dewey with Anderson, who claims that "Dewey insisted on the primacy of the reflective method of inquiry over settling on fixed answers to questions about the good" (Anderson, 2014, #4.1). She also further explains this, in noting that "Dewey believed that [the] traditional moral norms were [not] up to the task of coping with the problems raised by [the] dramatic transformations [of his times, since t]raditional morality was adapted to conditions that no longer existed" (Anderson, 2014, #0). And Dewey was, claims Juuso, a "philosopher whose thinking was closely bound up with the specific time period in which he lived" (Juuso, 2007). This view is shared by other Dewey scholars as well, and, moreover, Dewey himself would have claimed that this is true of all writers (Cunha, 2015). Like ours, Dewey's time was subject to drastic changes: it was a time of uncommon social, economic, political and technological change, marked by several wars, drastic changes in the societies both of Dewey's USA and the rest of the world (Anderson, 2014; Cunha, 2015; Juuso, 2007). Hence, Dewey perceived a need of a new strategy towards ethics in order to meet the demands of his present:

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[71] Although Dewey co-wrote "Ethics" with Tufts, I will, for simplicity sake, write "Dewey speaks" or "Dewey wrote" or "Dewey held it that," and so on.

> To address the problems raised by social change, moral practice needed to be thoroughly reconstructed, so that it contained within itself the disposition to respond intelligently to new circumstances. Dewey saw his reconstruction of inquiry ethics as a means to effect this practical reconstruction. (Anderson, 2014, #0)

But for Dewey, the inquiry was more than just the best way of doing moral reasoning. In some readings of him, it was not only the way of finding out what was good or bad, but rather, the thing that determined (or constructed or constituted) goodness: "Dewey spoke of the good as the object of desires of which we approve in calm, informed reflection" (Anderson, 2014, #4.1). For example, he claims that *ideal* values are such values that "when they present themselves to imagination [they] are approved by reflection after wide examination of their relations, [in contrast to] the goods which are such only because their wider connections are not looked into" (Dewey, 1985, p. 212).

But on other occasions, he is not speaking as if moral thinking is constituting what is good, but rather as if it is a means of understanding what is good: "Instead of serving as tools for understanding the moral facts, the ideas [by which he means *moral theories*] are likely to become substitutes for the facts" (Dewey & Tufts, 1908, Preface). The view he is here advancing seems clearly to be that there are moral facts out there, and the correct use of moral theories is to help us reach understanding of the facts.

> Aspects of the moral life have been so thoroughly examined that it is possible to present certain principles in the confidence that they will meet general acceptance. Rationalism and hedonism, for example, have contributed toward a scientific statement of the elements of conduct, even though they have failed as self–inclosed and final systems. [… T]here is a place in the moral life for reason and a place for happiness […] Theories are treated not as incompatible rival systems […] but as more or less adequate methods of surveying the problems of conduct. This mode of approach facilitates the scientific estimation […] of the part played by various factors in the complexity of moral life. The student is put in a position to judge the problems of conduct for himself. This emancipation and enlightenment of individual judgment is the chief aim of the theoretical portion [of this book]. (Dewey & Tufts, 1908, Preface)

Several important elements and aims of Dewey's thinking are present in the above passage. Here, he again states that there is indeed a moral reality to be found and understood. And again, he clearly thinks that it is through reasoning that this moral reality is reached, and, more precisely, moral theories are to be used in this endeavour. But again, he denies that any singular moral theory has succeeded in clarifying all elements of the complex moral reality. But the successful theories, such as hedonistic utilitarianism in his view, have succeeded in showing that happiness (in this case) has a key function in morality. And, finally, the education of the student into a being capable of judging for herself the correct application of theory, what facts are at hand in the aspects of the moral practice and particular moral situations that she finds herself in, is the main object he reaches for. As we have touched upon above, Dewey considers this ability to be of great importance to us, since we might face situations where our conventional moral thinking is unable to yield correct (practically suitable) standards of conduct. Anderson sums up Dewey's view:

> The need to reflect intelligently on what one is doing arises when the ordinary operation of habit or impulse is blocked. Customary means may be lacking; changed circumstances may make habits misfire, producing unintended and disturbing consequences; the social interaction of groups of people with different customs may produce practical conflicts that require mutual adjustment. When habit is blocked, people are forced to stop their activity and reflect on the problems posed by their situation. They must deliberate. The aim of deliberation is to find a satisfactory means to resumption of activity by solving the problem posed by one's situation. […] As the individual gets more practice in intelligent conduct, the dispositions that make it up become habits. (Anderson, 2014, #1.3)

Dewey would maybe go as far as claiming that what I have called "inquiry ethics" would be the very answer to the question of how to act, that it would be the method we should use in deriving an answer to the question "how should I act?," instead of deriving an answer from any (of the classical) normative theory(ies).[72] Hence, inquiry ethics would be a way of treating ethics in school – the highest, most refined and most important of these – and the answer to how to deliberate would be to use a form of critical thinking about ethics where prior thinking in the forms of theories would provide help and insight, but never settle the matter trivially. Anderson notes that "[i]n place of fixed goals and rules of action, Dewey offered his method of experimental inquiry, which he argued was shared between theoretical and practical reason" (Anderson, 2014, #4). Hence, Dewey thinks the way of treating ethics in school that I have called "inquiry ethics," is very close to the ideal way of handling ethics, *per se*, and is what traditionally has been sought when philosophers have engaged in normative ethics. For Dewey, the classical normative theories instead function to provide arguments, or evidence, for our deliberation.

Perhaps as a consequence of Dewey's writings, and perhaps for other reasons, for a while the idea of trying to mediate predefined values to students were seen by some as a suspect one, even seriously flawed. Thus writes Sher and Bennett (1982, p. 665) that it "is now widely agreed that educators have no business inculcating moral views in the classroom [and that] according to many philosophers and educational theorists, all attempts to influence students' moral behavior through extortion and personal example are indoctrinate […]" And Singer (1974, p. 619) states that it is wrong to teach ethics by "presenting and attempting to inculcate a number of rules or precepts of conduct, [… to alter] character, dispositions, or responses. The most effective means [… of doing this are] advertising, propaganda […], indoctrination, and brainwashing. These are all objectionable on moral grounds […]." But by the end of the previous century, things had definitely turned around, and there were a widespread defense of the idea that schools need to "cure the moral problems of society […] by molding the character of the next generation" (Davis, 2003, p. 32) Thus, then president of the USA Bill Clinton, in a State of the Union Address, "challenge[d] all our schools to teach character education, to teach good values and good citizenship" (Davis, 2003, p. 32). Hence, the conflict between the value transmission approach and the inquiry ethics approach has a long history. And indeed, to what extent it is a conflict will be more thoroughly investigated in the

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[72] It could be questioned whether this position itself would count as a theory, and, if so, in what sense; but none of that will be further elaborated here.

discussion. Indeed, Sher and Bennett (1982, p. 666) claim that "adequate moral education must include both directive and discursive element."

To the critique of the trichotomous distinction

The distinction between three approaches to ethics in school is foundational to this thesis. Therefore, it is important to test its limits, and to criticise it and see if it is possible to move beyond it, or use some better distinctions. And also to investigate if it collapses, which will be more thoroughly studied in the discussion section.

As I have described them above, the three approaches to ethics in school are a complex of some different assumptions and ideas. For example, the value transmission approach to ethics in school as described above includes the aim that students should learn some pre-defined values, and the didactic idea that this should be done through some rather direct transmission of values, or something similar. But it should be noted that these are two different things, indeed they are ideas of quite different types. One is an aim, the other a method. Similarly, inquiry ethics includes the idea that students should learn skills and abilities related to ethical reasoning, and also the idea that this should be learnt through the students themselves practicing such thinking and reasoning, through dialogue with others and through ethical inquiry. Again, there is an idea regarding the aim, and there is an idea regarding the methods for reaching this aim. Hence, the approaches stretch over several "dimensions," they include ideas on different levels.

Instead of speaking of complex approaches, including answers to several of these questions, hence being on several levels (or covering several dimensions), one could distinguish between the different answers to each question respectively. I think that the most important questions that the approaches constitute an answer to are the following: first, what is the aim of ethics in school? And, second, what is the method by which the aim is reached? Given these, we can distinguish between at least three different aims, described roughly as follows: (A1) The aim is to teach students empirical facts about moral beliefs, (A2) The aim is to make sure that the students uphold some certain, predefined values, and (A3) the aim is to make sure that the students learn to reason about ethics. Obviously, the first aim characterised above is intended to be the one that is taken in the descriptive ethics approach, while the second is the one taken in the value transmission approach, and the third one is the one taken in the inquiry ethics approach.[73]

On the other hand, we have three different methods as well that have been discussed thus far, which can be sketched as follows: (M1) The main method that should be used by school in regard to ethics is to present to students the moral beliefs of other people, for example through literature, through media and the news, through lectures, through reading about polls and studies made about what people in fact think about different issues. Facts should be presented and the students should memorise these. It might be that the students should be encouraged to make such studies themselves as well: the students might interview other

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[73] It should be noted that this is only supposed to be a reference to what has been described above, these comments here are not intended as clarifications or substitutions or modifications of what is said elsewhere about the three approaches, but rather shortened references to the more fully sketched picture already described above.

people about their opinions, they might hand out questionnaires or make polls. It might also be beneficial that the students in school get to share their own opinions, so that classmates can learn what others think. (M2) School should mainly be concerned with letting the students know what to do and what not to do, how to act and how not to act. It is important that people working in school be a good moral example, and that students follow this example. Straightforward transmission of values should be the pillar of moral education. It is important that those that do not follow or do not abide to the moral values of the school are corrected, just as those who misspell or perform counting errors or get their facts about biology wrong are corrected. The students could also be presented with examples of good moral conduct. Rules for behaviour also play an important role. (M3) Students should be encouraged to explore different ways of thinking about moral matters, to try and give arguments both for and against principles and values, and learn how to evaluate the strengths of such arguments. The students should be encouraged to "try out" even the values not shared by the teachers, in order to see the implications of such values. An open dialogue in the class, where an inquiry about the connections between different values and opinions are pondered about, where different moral views can be taken and critically evaluated, should be the main activity when dealing with ethics.

It should be noted that in the sketchy presentations of the methods above, it could be understood as drawing the main lines and that following a certain method means that a majority of what you do in school is in line with what is described above, but it does not mean that a school working in accordance with e.g. (M1) could not have rules of conduct such as that one should not wear shoes in the classroom or hit one's peers. Given these distinctions, we can then specify nine possible different ways of dealing with ethics in school, as shown in Table 1.

Table 1. Nine forms of two-dimensional approaches to ethics in school.

	M1	**M2**	**M3**
A1	1	2	3
A2	4	5	6
A3	7	8	9

Now, of these nine forms, the approaches discussed thus far in the thesis, the descriptive ethics, the value transmission and the inquiry ethics approaches, respectively, correspond to numbers 1, 5 and 9 in Table 1 above.

It might now be asked, why haven't I used another set of distinctions, given that I have the above criticism against the trichotomy. Part of the answer is that my criticism against the trichotomy has grown and evolved during the work with this thesis. But, even if I had started over from now, I still see reasons for using the trichotomy instead of the above discussed multi-dimensional framework.

The first argument for using the trichotomy as a theoretical framework is practicability and ease of use. The analysis and synthesis of data would have been many times more

demanding and time consuming, and the results would also have been far less comprehensible. It would have been less clear what was found, and it would be more difficult to apply the findings to school practice.

The second reason is importance. I think that the trichotomy singles out the three most commonly advocated (and probably also most interesting, at least for now) combinations of answers to the above two questions, although other ones may be logically possible as well. Hence, adding any of the others would add far less of interest to the findings, but, as noted above, would diminish understandability of the study as a whole. And it can even be questioned whether all of the nine approaches described above are actually (practically) possible. E.g. it could be questioned whether a true dialogue, an inquiry, could be used under the assumption that the aims are that a certain set of pre-defined values should be reached.[74]

The third argument is moderateness. Using the trichotomy itself is quite a big step from the current understanding of ethics in school. And, if the points made in this discussion are close to correct, it has also made some interesting insights possible. If so, there is a reason for using as small a difference as still allows for a substantial furthering of the field. Going too far away from current terminology risks causing more confusion than clarity. In further studies, if a more finely detailed view is sought after, a multi-dimensional distinction could be utilised.

Hence, using the trichotomy seems as an effective and reasonable tradeoff between the values and considerations discussed above. But doing so, I still think that a valuable lesson from this discussion is that the aim is still the most important part of the approach, so when I speak of the three approaches, I first and foremost speak of the aims (A1), (A3) and (A5).

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[74] That would be like saying "Welcome, we are now going to have an inquiry into these matters, an open dialogue, and we will do this because it is mandatory that you come to the following conclusion in the end. If you fail to do it this time, we will try again, and by your last year in school, it is our aim that all of you have come to the following conclusion …" It seems like a choice situation with only one option to choose. In what sense is it an inquiry in case the answer is already decided? Hence, a value transmission aim cannot be paired with an inquiry ethics method, with genuine dialogue.

METHODS

In this study, some different designs for information gathering have been used, different forms of data have been produced, and a couple of methods have been used to process the data, all in order to answer the research questions of this doctoral thesis, getting results that can be justified, and thereby fulfil the aim of this thesis. I use the expressions "produce data" instead of "collect data" and "process data" instead of "analyse data," as will be discussed below. In this section, I will describe, critically examine and give reasons for methods used and methodological choices made in the process of producing this thesis.

The sources of data in this study are individual interviews with students, on the one hand, and documents, mainly the curriculum for the Swedish compulsory school, on the other hand. In the interviews, rather open-ended questions were asked, and I was interested in the students' reasoning, and hence each interview was a bit different from the others and quite rich in information. Hence, in both cases, I was aiming at producing qualitative data.

There are some problems in relation to this that I have tried to address. Miles and Huberman (1994) state that two pressing questions for qualitative research are how we can draw valid meaning from qualitative data and what methods of analysis will get us knowledge that we and others can rely on. There are several problems regarding the use of qualitative methods, not only in regard to what is called "analysis." Some of them are the risk of researcher bias, the time demands of data collection and processing, the problems of repeatability of analysis and of obtaining results, the generalisability of findings, as well as the credibility, quality and utility of the conclusions (Miles & Huberman, 1994; Boeije, 2002). In the rest of this chapter, my intention is to try to show how these issues have been dealt with. With regard to researcher bias, for example, I have tried to minimise such bias through the use of methods and structures for interpretation and other data processing, but also to be transparent with how the data processing has been carried out and to describe in the results and discussion sections some of my own perceived prior beliefs and attitudes, which might help the reader evaluate any remaining bias[75] and understand my "horizon" of understanding (see below), as well as furthering the repeatability of the processing. This will hopefully further the possibility to fruitfully assess the outcome of the data processing. I will also discuss generalisability below, as well as the credibility of conclusions and their utility.

The research project in which this study is a part has been approved by the regional ethical review board for vetting the ethics of research (dnr 760-2010), and the parts relating to varieties in students' moral reasoning have also been reviewed in a separate application (dnr 45-2009), and this is good reason to hold it to be in accordance with Swedish law concerning the code of ethical conduct (Ministry of Education and Cultural Affairs, 2008). All

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[75] It can be argued that in research where an interpreter is present (as, it can be argued, all research is, but at least clearly this one is), the data processing, without exception, is dependent on the interpreter in a non-trivial way. It can be argued that some bias is always going to be present, since all researchers are different, and hence, some differences will always be present in the data processing. Still, one could try and minimise these, and it can be questioned whether they have any practical significance, if they are small enough. Transparency, as well, increases the epistemic value of the study. Moreover, it is sometimes claimed that, even though particular studies are always subjective in the above described way, in case several researchers contribute with research into a subject matter, this resulting intersubjectivity can in fact approximate objectivity. (cf. Longino, 1990)

participation in this study has been voluntary, and the research participants were free to withdraw at any time without giving a reason why – although none chose to do so. Informed consent was obtained from each research participant, meaning that relevant information about the research and the roles of participants and possible consequences and risks of participation was given to each participant before the consent was given. Since the participants in this study were all minors, informed consent has been obtained from their caregiver(s) as well. Hence, both the students and the caregiver(s) were given relevant information about the research, and the students were presented the information in a way that was judged to be appropriate given their respective ages. There was at least one student, but not more than a few, who chose from the beginning not to participate, and I don't know the reasons for that. Confidentiality has been practiced, meaning that unauthorised persons have not had access to the (raw) empirical data. The data has been kept for future researchers to be able to verify drawn conclusions.

The above tried note on some formal and well-known aspects of research ethics are just a few of the ethical concerns raised and discussed in this chapter. I have opted not to have a separate heading concerned with ethics, because most (if not all) of what is written in a methods section (and a lot of what is written in other parts as well) concern ethics, more or less directly. Hence, having a separate heading concerning research ethics would either lead to a severe diminishing of what research ethics is, to only those aspects that have legal or pseudo-legal status (such as described above) or would have meant that nothing would have been left out of it, whereby it would have been redundant.

Data production

Relating to the questions of whether or not science can be carried out without interpretation, or free from researcher influences, and whether or not observations are theory laden (Hanson, 1958), is the question of what relation data has to the researcher and the object of study (in general terms, the world). In one view, sometimes considered a naïve view (cf. Chalmers, 2013), data are simply collected. Most of the time, scientists speak of "data collection," rather than "data production," although there are exceptions (cf. Bogen, 2014).[76] Contrary to the orthodoxy, I think that it is better to use the expression "data production."[77] Data, in my view, are not something that are found.[78] We perceive *things* (or *the properties of things*), or *states of affairs*, or *events*, or something similar (maybe we perceive *facts*, here understood as the obtaining of a state of affairs (Mulligan & Correia, 2013)), and based on

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[76] As of December 2015, a search on Web of Science showed that "data collection" (in some form) was used about 20 times as often as "data production" and "data construction" (in their various forms) taken together, despite only 1 of 3 of the articles checked actually using these latter expressions in the sense used here (the others being mere coincidence, like "… data. Production …"

[77] One could alternatively use expressions such as "data creation," "data construction" or "data generation."

[78] A straightforward argument for this position is that if data are collected, or found, it is not reasonable to believe that data can fail to correspond to reality. But it seems as if this can oftentimes be the case. But how could we account for such non-corresponding data? How could such data be collected? It should also be noted that a similar position to mine is sometimes advocated on the grounds of such theories as some form of post-modernism or some relativist or subjectivist view of ontology and epistemology, but none of these are my rationale for my view on data production.

such perceptions we form representations. Data are representations of whatever it is that we more directly perceive, and, as such, data are human constructions. Moreover, it seems that data can never represent every aspect of the world. Hence, it seems reasonable to hold data to be something produced by us, to represent something else (our perceptions, or things or properties or events in the world outside us). The realisation that data are produced is important, I think, to understand the prospects of science. Accordingly, I have carried out the data production utilising methods and theories that I have considered beneficial in making the data production as reliable as possible, including the view that interpretation has a role to play in data production as well as in data processing, rather than viewing the data production process as something trivial.

The use of the terminology "data production" might unfortunately lead one to think about fabrication of data and fraudulent science, which is something quite different from what I mean by "data production." Needless to say, what is referred to as "fabrication of data" is not an acceptable practice in science.[79] But when one produces data in accordance with reasonable methods,[80] these concerns are no longer a problem. Moreover, believing that data are trivial and all-inclusive might risk failing those standards, and leading researchers into sub-optimal beliefs (cf. Popper, 2005). In accordance with this reasoning, I will use the terminology "data production," but I think that I thereby will denote that (or something very similar to that) which is usually referred to by the terminology "data collection." I just think that the former expression is more suitable than the latter.

Documents as sources

Documents are used in this study as a source of information for data production. One of the main issues in using documents as information sources is the interpretation of the texts, including giving some theory of interpretation and justifying the interpretations one has done. But this is an issue of data analysis, or as I prefer to call it, "data processing," and it will therefore be discussed below.

Regarding data production, when documents are used as a source, one main issue is whether the chosen source is indeed a reasonable source given the aim of the research, i.e. if it is relevant to use it. The question is whether data generated from the document can be used in giving useful answers to the research question. The amount of written material accessible to a researcher is so vast that it is hard to describe, and hence, there are lots of documents that might be used in a study, but most of them would be irrelevant to most studies. In relation to some research questions and aims, the problem of finding (the most) relevant documents can be a sizable one. In other cases, finding the relevant documents is rather unproblematic. The

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[79] But the difference between fraudulent science and reasonable science is not, I think, that the latter does not include data production, but rather that in reasonable science, data are produced in accordance with certain principles and methods, and meeting certain standards, while in the case of fraudulent science, those standards are not complied with (cf. Hansson, 2015; Popper, 2005; Thagard, 1978).

[80] How we come to know what methods are reasonable, and how to distinguish good methods from worse ones, is of course one chief objective of the philosophy of science. And I think that my account is not the only one that depends on these matters, since all of science can be said to rest upon these philosophical theories about what distinguishes reasonable methods from others, and the problem of demarcation in general.

present study falls quite neatly into this latter category. Since the first research question explicitly mentions the curriculum of the Swedish compulsory school, this document is highly relevant. And there are no problems with authenticity either in the case of this document. But I have used some other documents as well, and in the case of these, the current questions are a bit more pressing. In order to give a context to the main document – the curriculum – the Swedish Education Act, SFS 2010:800, (Ministry of Education and Research, 2010) with more recent changes, SFS 2011:189, the preparatory report (SOU 2007:28) – one of the Swedish Government's Official Reports – that was underlying the new curriculum, and a report by The National Agency for Education (Lundgren, 1999) which describes the reasoning behind the first introduction of the value foundation into a Swedish national curriculum, were used. The choice of these is quite unproblematic in this context. The Swedish Education Act is the primary law that governs the Swedish educational system. First of all, this is suggested in the name of the law. Second, it is stated at the very beginning of the law itself: "This statute contains provisions about the educational system" (The Swedish Education Act 2010:800, chapter 1, section 1, my informal translation). Moreover, the law is mentioned in the second sentence of the curriculum (excluding the introduction). Hence, it is quite clearly relevant. The preparatory report is the report which was the foundation of the work with the new curriculum, and therefore it gives a background to the considerations behind the production of the curriculum, and hence is interesting in justifying some interpretations of the text in the curriculum, since it can be said to describe the intentions behind the formulations of the curriculum. The same is true of the 1999 report. Hence, it is interesting in understanding the choices made in formulating the curriculum. For these reasons, the choice of these texts seems justified.

At first, it might seem that there are no further problems of data generation, once a document has been chosen. But deciding what parts of the text that are to be used for data generation is still a problem. Even before data processing actually takes place, even before one starts interpreting the data, there are instances of interpretation that impact what parts of a text that one uses for data production in the first place. In the case of the curriculum for compulsory schools, preschool classes and the leisure centres in the Swedish educational system (Swedish National Agency for Education, 2011a), the whole document, including the syllabi for the different subjects of the Swedish compulsory school, was used. It was studied in a search for both explicit and implicit references to ethics, and the identified references were analysed and compared, as will be described below. The remaining problem, then, is whether important documents have been left out. The answer to that question is most certainly yes. I think there are other documents that could have provided further relevant information, but I do think that (especially regarding the national curriculum, and to a lesser extent also the law and the preparatory report) these are the most relevant documents I am aware of. But, as any historian probably would agree, there might be other documents, presently unknown to me, that might be even more important than some of these (although with regard to the curriculum itself, I am having troubles imagining what a document that would be, since the question explicitly concerns *that* particular document).

There are three sections in the curriculum, and all of them were used for data production in this thesis. The first part is called "Fundamental values and tasks of the school," the second

"Overall goals and guidelines," and the third is the syllabi for the different subjects of the school.[81] The second section includes the following headings: "Norms and values," "Knowledge," "Responsibility and influence of pupils," "School and home," "Transition and cooperation," "The school and the surrounding world," "Assessment and grades," and "Responsibility of the headteacher." One of the subjects covered in the syllabi is Technology. The syllabi all have the following form: first, a general aim is given, followed by the core contents of the subject, divided into the different school years, and then the syllabus ends with the knowledge requirements for the different grades, again divided into the different school years. The core contents are given as concise bullet points.

There are 20 syllabi in the curricula for the Swedish compulsory schools. These are: Art, English, Home and consumer studies, Physical education and health, Mathematics, Modern languages, Mother tongue tuition, Music, Biology, Physics, Chemistry, Geography, History, Religion, Civics, Crafts, Swedish, Swedish as a second language, Sign language for the hearing, and Technology.

Not all references are made by explicit use of denoting terms. Ethics can be discussed without using the term "ethics." Hence, finding possible implicit references to ethics in the curriculum is necessary to further answer the question of what role ethics plays in school according to the Swedish curriculum. This process relies more on the interpretation from the researcher than is the case regarding explicit references, as will be described below.

Since this thesis is written in English the official English translation of the curriculum was used for quotes and references. It is the Swedish text that is legally binding to school, but it is not difficult to find the corresponding references in the Swedish materials when one has the English translations and page numbers. The Educational Act and the preparatory report were read only in Swedish, and the quoted passages were translated into English by the author.

Interviews as sources

I have used individual interviews as one of the bases for data production. There are several problems that I have tried to deal with in this, in accordance with what has been discussed above, but also several strengths that this approach has to offer. Interviews have played a key role in educational research for a long time. Tierney and Dilley (2002) claim that the role that qualitative interviews have played in educational research might be unparalleled, providing the possibility to gather a unique kind of information.

In this study, 24 students, aged 11 to 15 years, from two municipally run schools, that were part of the compulsory school programme, in the northern part of Sweden participated in the interviews, in two different sets of interviews; 19 participants in the main set of interviews, upon which data used in all of the results were produced, and 5 participants in a secondary set, upon which data used only in the parts of the results called "Varieties in students' moral reasoning"[82] were produced (see below). The 19 main interviews were conducted by me,

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[81] The headings and names of the syllabi, etc., are actually written with only the first letter capitalized, in the English translation of the curriculum, and I have followed this style.

[82] That section of the results is based upon the article "Six forms of varieties in students' moral reasoning" (Backman & Gardelli, 2015) as noted in that section.

while the other 5 were conducted by another doctoral student.[83] For this reason, the interviews conducted by me will be presented first, and after that a brief description of the rest of the interviews will follow. Individual, semi–structured interviews with open–ended questions were held, in the students' school environment, but not in their ordinary classroom, and I had spent some time in the class before the interviews, for several reasons. All this will be expanded upon below, in justifying the choices made and presenting some problems I tried to deal with.

Interviewing children, especially when those children are students in a school setting, poses distinct problems and requires special considerations, as we shall see more below. There are therefore reasons for not using interviews in studies of children, but instead other methods, such as observations (Eder & Fingerson, 2002). On the other hand, there are good reasons also for using interviews in such circumstances. Two such reasons are given by Eder and Fingerson, who claim that interviews are effectively used "to allow [the children] to give voice to their own interpretations and thoughts rather than rely solely on our adult interpretations of their lives [and to] study those topics that are salient in their lives but do not occur in daily conversations or interactions" (Eder & Fingerson, 2002, p. 181). Hence, there are both ethical and epistemological (which can be seen as a type of internal research ethical consideration[84]) reasons for using interviews in research of the present kind.

In choosing the themes and questions I wanted to include in the interview, considerations were given to a distinction that by Björklund (2000) is termed serious versus everyday moral dilemmas, as described in the background. Indeed, I did not consider the examples and topics chosen to constitute dilemmas, but the distinction can still illuminate interesting aspects of the situations. The cases discussed were, borrowing from Björklund, both everyday and serious cases, albeit not dilemmas.

I presented an example to the participants, which I said that I would like to hear their reasoning about, if they wanted to share it. Almost all of them wanted to share their opinions and reasoning. The exact formulation of the example varied a little from interview to interview[85], but the core was this:

> I (Interviewer): I have a small example, a situation, which I would like to hear your thinking about. There is this kind of machine, a so–called pacemaker, which can help people with heart disease. [And here, we would briefly discuss what a pacemaker really was, if they wanted to.] Let's say that this technology develops and somebody invents a more efficient pacemaker than those existing today. If we were to build the factory needed to produce these more efficient

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[83] Ylva Backman, Luleå University of Technology. She has included the article (Backman & Gardelli, 2015) in her doctoral thesis (Backman, 2016), but discussed it in another framework, so the interested reader might find that valuable.

[84] In fact, most, if not all, of what is dealt with in the methods section is directly or indirectly related to, and grounded on, matters of research ethics. For example, Forsman (1997) notes that it is a reasonable and commonly held view that bad research is always unethical.

[85] In making these variations, as noted above, I was conscious about not altering anything that I considered could have any significant bearing on their answers, in terms of the aspects of their reasoning that fall under theories in moral philosophy (to the best of my understanding of these theories, of course). Of course, any change in the way information is presented might have *some* consequences upon the receiver of the information. But again, being perceived by the students as "robotic" and "reading my script" was considered to have a greater potential of negatively influencing their answers.

pacemakers, there would be a leakage of poison that would hurt some people working at the factory and some people living nearby. About 20 people would die, but these new pacemakers could save thousands with heart problems. What do you think: should the factory be built or not?

In the background, I have discussed several issues relating to the use of this kind of questions, their use in earlier research, their relation to moral dilemmas, and so on. Since similar cases are fairly common in research, I take it that using them is rather uncontroversial.

One of my main intentions with the example was basically to study what kind of reasoning the students would give to provide a rationale for their choices, and what reasoning and judgements could be interpreted in the answers they gave. I planned to use theories from moral philosophy[86] to analyse and interpret their reasoning, and potentially other theories as well, depending on the answers that were given.

In the parts of the interviews from which come the results regarding students' views on online behaviour, such questions as "What information about oneself should one post online?" or "What do you think one should say about oneself on the Internet?" or "Is there anything one should not say about oneself online?" were used. I did not ask them about what they did or did not post online, i.e. I did not ask them about their actual behaviour – such studies have been performed before, as we have seen. And even though I did not, some students answered by describing their own behaviour: "I only post, like, my name and then a picture." But most of them answered in general terms, with formulations such as "I think that one should/should not …," hence doing their own reasoning in these questions, rather than explicitly reporting their own behaviour.

When performing qualitative interview research, one problem to be dealt with, indeed perceived by many researchers as one of the most urgent ones, is deciding what number of participants is needed for trustworthy research (Guest, Bunce & Johnson, 2006). One typical answer is that one can (and should?) stop when one reaches *theoretical saturation* in the data processing. But, as Guest, Bunce and Johnson (2006) note, this only helps when one is already doing the data processing, but does not help in determining how many participants to include in the study from the beginning. Moreover, they conducted a review showing that there was indeed a lack of definitions and operationalisations of what saturation in the analysis process actually is. Their study shows that the creation of new codes over the course of data analysis decreased drastically, that actually 70% of new codes were created in the first 6 interviews, while after 12 interviews about 88% of the codes were already created, although 60 interviews were conducted and analysed. They therefore suggest that 12 interviews is a good starting point if the group is fairly homogeneous (with regard to the issue at hand, I presume). Indeed, other studies have shown that even smaller sample sets can be used, if the participants can be considered "experts" on the topic of the interview. For example, Thomas and Pollio (2002) also suggest between 6 and 12 participants, while Creswell (1998) suggests that a reasonably sized group has between 5 and 25 participants, and Boyd (2001) goes as far as stating that it is enough to have between 2 and 10 participants. Reasonably, the size of the

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[86] First and foremost I considered this to consist of theories from normative ethics (such as utilitarianism, virtue ethics, Kantian deontological ethics, etc.), but also possibly theories from metaethics.

sample also depends on what kind of processing the researcher is planning to do, the aim and questions of the research, and also the composition of the sample, as well as the relation between the sample and the population in general (cf. Beitin, 2012), as well as, of course, the amount of data produced based on each interview (sometimes referred to as the "depth" of the interviews).

In the interviews conducted by me, all participants were students in the sixth year of compulsory school in Sweden. This means that they were aged around 11-12 years old. They all attended the same school – a regular school for the earlier years of compulsory school in northern Sweden – and were divided into two groups for most of the time, but had some subjects together as well. The sixth year was the last year they were to attend at that specific school. This means that I consider them to be fairly homogeneous. And due to the fact that the question is concerned with their own reasoning, it seems fair to consider them to be experts in the subject matter. Hence the number of participants (19 in most of the results, and 24 in parts of them) is well over the lower limits discussed above. I have no particular reason to believe that they differ in any particular way from a typical group of students of a similar age in a school in the north of Sweden at the time.[87]

Related to the naturalness of the context is also the forms of communication that exist among the participants. It is sometimes argued (cf. Briggs, 1986; 2002) that interview studies should be grounded in the discourse of those being interviewed. This is not of less importance in studies of youths, who tend to have discourse styles and cultures of their own, different from those of adults. Briggs believes that the conducting and analysis of interviews should be based on knowledge about the nature of the communicative competences of the youths being studied. One way of acquiring such awareness of the participants is to base the interviews on prior observation of, and informal interviews with, the children. Eder and Fingerson (2002) also consider it essential to begin an interview study with some observations. But this can be taken one step further, arguing that interviews should be used together with other methods for information gathering. Using interviews in combination with other methods might be done "both to obtain more valid responses and to strengthen the analysis of interview data" (Eder and Fingerson, 2002, p. 188). But other relations between the observation and interview are of course possible as well, as discussed above.

Before the interviews, I had spent some time in the group, so that we knew each other to some degree. My role in the classroom had not been as a teacher, but I had been coming there for about half a day each week for almost two months, and had dialogues with them in groups of about fifteen students, centring on their own questions and reasoning. That way, they were a bit familiar with speaking with me about their own thinking, and I had the opportunity to get a bit of a feeling for the different individuals. Moreover, I had been around enough for them to have dropped the initial extra interest in me as a guest in their classroom and school environment. I had not myself been a participant in the dialogues, but merely formally facilitated them, according to a distinction made in (Gardelli & Strömberg, 2012; Strömberg et al., 2012). Hence, I do not think that I made a dramatic impact on the context of their discourse, but I had the opportunity to make myself aware of it. I had the chance of creating some awareness of their school context, their language, what seemed to interest them,

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[87] Although generalisability is not the main feature of a study of this kind.

and so on. During this time, I had the chance to have lunch with them and spend some time with them outside of their classroom. I also had the opportunity to see some of their ordinary classroom situations, and I got to speak quite a bit with their teachers, which furthered my understanding of their school environment. All this was beneficial in the interview situation, but also in the subsequent data processing.

A major problem with interviewing in general – and interviewing children is no exception, but rather the opposite – is the power relations (cf. Cassell, 1980), especially when the interview is conducted in a school setting, between child and adult, student and teacher and respondent and interviewer. Indeed, Eder and Fingerson (2002, p. 182) claim that "in general, children have lower status than adults and lack power in Western societies." Mayall (1999) advocates seeing children as a minority group, in relation to adults, and states that "child" is a relational category defining children as subordinate to the superordinate "adult." It is important to consider the relationships and power dynamics between adults and youths when conducting interview research with children. One way of doing this can be to combine other kinds of interviews with ordinary single subject interviews, as well. Individual interviewing, which is, or at least was a few years ago (Tierney & Dilley, 2002), the most common form of qualitative interview in education "can be combined with group interviews, where the group interviews help empower the children and work to even out the power balances between researcher and respondents" (Eder & Fingerson, 2002, pp. 191-2). One problem with group interviews is that participants may state opinions and views that are in harmony with the views expressed by peers with higher status, even though they in individual interviews would have stated the opposite views (Fingerson, 1999).

Another important aspect of interviews with children is *reciprocity*, i.e. that the respondents gain something from the interview as well, and not only that the researchers gain from the interview situation (cf. Corbin & Morse, 2003). This is also a way of making the relation more equal in power and status (Eder & Fingerson, 2002). One such thing that can be beneficial to the children can be to get the opportunity to "think through issues of importance to them by talking about them with interested adults" (Eder & Fingerson, 2002, p. 186; cf. Taylor, Gilligan & Sullivan, 1995). Further ways of showing reciprocity are to "[give] something back to the community" (Eder & Fingerson, 2002, p. 186) that the participants belong to. For students in school, the chance of the research providing a change in the school environment and school setting can be one such way of giving something back to their community, and hence providing that can be an act of reciprocity. Yet another way of giving something back, and showing reciprocity, is to use one's skills and knowledge to give "service to the community [in which one's] research [takes place]" (Eder & Fingerson, 2002, p. 187). In this way, the researcher uses his or her skills to help the participants with something they need, and they use their information to help the researcher with something he or she needs. This is a way of showing that the researcher considers the participants to be valuable and that she is willing to give something up for their sake, which decreases the gap in the power relation. Tierney and Dilley (2002) suggest that this can for example consist of a research situation that invites the participants to think in new ways, thereby empowering them.

All these ways of showing reciprocity make the exchange that the interview constitutes a more mutual undertaking. Of course, one risk here is that the respondents are being paid, in

some sense, to participate in the research, which can be problematic in some cases and for some reasons (Forsman, 1997). It once again touches upon the power relations discussed above. Adults might accomplish things that are so valuable to children that they come to do things they normally would not do, such as speak about things they actually feel uncomfortable speaking about, but which they feel they have a duty to do because of what they have been given by the adult. Forsman (1997) states that giving some compensation for participants' time and effort is reasonable, but that it should not be used as an incentive to tempt participants to join the study, and in the case of a school class, for example, the perks could be distributed to everyone, regardless of whether or not the individual participates. It is important, though, to make sure that this does not lead to the students feeling that they owe the researcher anything. In the case of the present study, no compensation was advertised as relating to their potential participation, and the "perks" were distributed independent of participation, and as noted below, not the kind that can be thought to put the student in debt to the researcher.

One way to deal with the unequal power relations between adult and child, researcher and participant, is to make sure that the setting of the interview is one in which the student is empowered. I tried to achieve this through several methodological choices. Due to the risk of peer influence, I opted not to use group interviews in the present research, but instead use other ways to deal with power relations and other issues that group interviews might help solve, some of which has been discussed above. And the time I spent with the students before the interviews, I think, was a way of showing my respect for them and interest in their views and reasoning, and their everyday school experiences. It was a way of trying to equalise the power relation in creating a mutual situation including reciprocity. My participation in their school environment for about two months, where I had the chance to show the students my interest in their situation in general, contributed to this. Most important in this respect, though, was the dialogues I facilitated in their classroom. This was an extracurricular event that they reportedly enjoyed, in which they had the ability to pose their own questions, then democratically choose which of these to talk about, and then discuss these with each other. I have described this methodology elsewhere (Strömberg et al., 2012). This was a way for me to give them something, but also specifically a situation that centred around them, and where it became obvious to them that I was interested in hearing their reasoning. Listening to them in this way, and showing interest in their reasoning, is a way of showing them respect and a way of bridging the gap in power (Backman et al., 2012; Strömberg et al., 2012). I think that this practice made them understand that I wanted to use my skills to give something to them, but I would be flattering myself to think that it was of such high value to them that they felt forced or coerced to participate in my study; its not like I gave them an iPad in exchange for participation.

In interview research with children, it is also of great importance to establish a natural context within which the interview can be conducted, a context that promotes communication between the participant and the researcher (Gubrium, Holstein, Marvasti & McKinney, 2012). The location where the interview takes place, argues Herzog (2012), has consequences and bearings on how the interview turns out, and it has an effect on the social climate of the interview situation. If possible, she argues, the location of the interview should

be one that participants are familiar with. One way of doing this, as advocated by Eder and Fingerson (2002) is to interview children in groups (sometimes called "focus groups," see e.g. Merton (1987)) instead of single person interviews, which the authors believe will also contribute towards equalising the power relation discussed above. They furthermore argue that the interview context can be made more natural by conducting the interview within a larger activity with which the respondents are already familiar. An example of this could be conducting the interviews within ordinary classroom undertakings such as literature discussions. The context being natural is of importance for the authenticity of the interview content, which has a strong bearing on the credibility of the research (Miles & Huberman, 1994). There are indeed other problems of the validity of the answers that participants give in research situation regarding what they perceive to be acceptable answers or answers anticipated by the researcher.

Although the group dialogues were not part of the information gathering process upon which data was produced in the present study, I still believe that it facilitated making the interview situation a more natural thing for the students, although keeping a boundary between itself and their ordinary school practice, as discussed more below. The interviews were taking place in their school, in a room they were accustomed to using, but not for traditional classroom work, but sometimes for group work or other special activities. This way, the room was a place they "owned", and that contributed to reduce my power advantage. Moreover, it contributed to the establishment of a natural context for them.

I hold this to contribute to the authenticity of the interviews and the content produced in them, hence positively influencing the credibility of the research. Moreover, there are reasons to hold the method to be quite valid, since there are reasons why the participants gave quite truthful responses in the interviews. I will elaborate on why in coming passages.

According to Gubrium et al. (2012, p. 2), one of the more important technical issues with interview research is "formulating questions and providing an atmosphere conducive to open and undistorted communication between the interviewer and the respondent." The authors also claim that "the underlying assumption is that if the interviewing goes 'by the book' and is unbiased, respondents will communicate the relevant facts about their lives" (Gubrium et al., 2012, p. 2). But, as we shall see below, there are several difficulties in making sure that the interviews are unbiased and making sure that everything goes by the book, if it is even possible.

Although there are reasons for embedding the interviews in ordinary classroom situations, there are severe problems lurking here as well. Most students, if they are not very new to school, have a large amount of experience with classroom situations where "known-answer questions" are the most common type of questions (Tammivaara & Enright, 1986). Creating classroom situations dominated by monologue and known-answer questions might be done out of the belief that it is pedagogically sound, or it might be done to control and assess the knowledge of the students (Topping & Trickey, 2007b). In any case, these kinds of factual, controlling questions are so common to students, that in the interview situation, they might think that the interview questions are indeed such known-answer questions (Nystrand et al., 2003; Tammivaara & Enright, 1986), and they might therefore start to produce the answers they believe that the adult, the interviewer, wants to hear, and not the answers they would

otherwise want to give.[88] There is an especially high risk that this behaviour occurs when students perceive of the interviewer as a teacher (Eder & Fingerson, 2002). Hence, there are reasons for researchers to try to avoid appearing as a teacher, by making sure that the interview situation does not appear to be one of those ordinary classroom situations, and by, as Tammivaara and Enright (1986) suggest, avoiding certain controlling behaviours that might associate the researchers with teachers, and they give examples such as asking respondents to stop fidgeting or to stop being silly. Eder and Fingerson (2002) note that avoiding the situation where the children make these misinterpretations leads to more valid information coming from the interviews.

In the interviews, a qualitative design with open-ended questions was used, as noted above. The interviews were individual and semi-structured, by which is meant that there were a set of pre-defined questions and themes of inquiry which I wanted to hear the participants' reasoning about, but depending on the individual interview situation, follow up-questions were used, and some questions were explained upon request from the participant. Slightly different formulations were sometimes used for what is considered the same question, to adapt to the participant in question and give them a feeling more of an easy conversation than a formal questioning. Telling it "from the heart", as opposed to reading from the script, contributed to me feeling that each interview was unique, and more of a conversation than an interrogation, and hopefully that made the participants more relaxed. One reason for all this was that I wanted to try to diminish the feeling of power exercising (cf. Cassell, 1980; Eder & Fingerson, 2002; Hood, Mayall & Oliver, 1999) and I wanted the situation to be as natural (cf. Eder & Fingerson, 2002) and comfortable as possible for the participants.

The interviews did not start out from an interview protocol in a strict sense, but I used a memorandum which contained information about topics I aimed to discuss with the students. It contained open and general questions, such as "What is good technology?," "What information should one post online?," and "Ought we to have nuclear plants in Sweden?" It also contained more particular and specific descriptions of some hypothetical situations with moral content, concerning behaviour such as situations where the interests of different groups conflicted, or where potential violation of friends' integrity on the Internet was at stake. The descriptions of the situations were followed by supplementary questions, concerning what the interviewed student considered it morally right that the hypothetical student should do, and the reasons for that stated position as well as the meaning of different expressions the student used. The frequency and nature of the supplementary questions were adjusted to aspects of the interview situation such as how much the students talked and the perceived self-confidence of the interviewed student. Both for ethical and epistemological reasons, I did not want to make the students think that I was not satisfied with their given answers, thereby pushing them to give further statements, potentially changing their minds, in order to satisfy what they perceived me as an adult authority to want them to say. Hence, in each interview, and with regard to each question, a balance needed to be kept between the wish to help the student explain their reasoning as fully as would feel comfortable, but at the same time not to

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[88] After all, that is what gives grades in school: you are not typically praised for giving *correct* answers, but answers that the teacher conceives to be correct (at best) – hopefully, those two do not differ considerably. Hence students (at least successful ones) reasonably learn to find out what answers the teacher wants, and then provide those answers.

push them into saying something that is a response to the perceived interests of the interviewer rather than something that comes naturally from the student's own reasoning.

This was also one reason for using semi–structured interviews, since they would most resemble a conversation between the interviewer and the respondent, where the interviewer was interested to hear what the student wanted to say on the topics being discussed and the questions posed by the interviewer (cf. Tammivaara & Enright, 1986), while at the same time helping to keep the discussion fairly much "on topic." So, if a participant seemed a little nervous and tense, I would add some small talk and (to the best of my ability, after spending time in their class over the past month) youth-like expressions to my questions and descriptions. These were not considered to alter the meaning of the questions, but simply present them as less formal and less pre–defined. If a student gave a brief answer to a question, I would follow up with questions such as "Why do you think that is so?" or "What are your reasons for thinking like that?" or "Would you like to explain that a bit further?" or "Ok, so what would you say, then, about this or that?" and so on. But I would not pressure, or push, them to answer, and tried to communicate this to them, both verbally and through my actions and the way I responded to their utterances. Sometimes the participants answered to the original question in such a way that they did already state their reasoning behind a certain position taking, in which case the follow up-questions were not needed.

As noted above, the interviews were not held in their ordinary classroom, to avoid the feeling of it being a typical teacher–student event, and I had, throughout the time I spent with the group, tried to make sure that the students did not consider me a teacher. I am fairly sure that they did not. There were some occurrences in some of the early group discussions where they were curious about what my opinion was on some of the matters being discussed, and in one of the dialogues they asked me, but I explained to them that I was there because I was interested in hearing their opinions, that I was not sure myself of what to think (which was true, and I think they understood that), and that I wanted to hear their thinking as a help in forming my own opinions (yet again, true). It seemed to me that they understood this, and they seemed to have become less curious about my opinions, and more willing to share their own after that situation. This positively influenced the authenticity of the interview situation, since it made less likely that certain things that could distort the communication would occur in the interviews. Hence, I do not think that they were influenced by my views and opinions about the questions involved, apart from that they could guess that I was interested in learning to know about their own thinking and reasoning about technology in general and ethical aspects about technology. But that is information that was derivable from the interview situation itself, so that ought not to have had any significant impact on the content of their expressions in the interviews. But it is possible that it had the effect that they were a bit more comfortable in the interview situation and more willing to share their thoughts than had they been with a total stranger.

Since the interviews were held in school, there were opportunities for the participants to share information with each other about the interviews in between the interviews.[89] I have reasons to believe that some information was shared between the students, but I do not have

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[89] As stated above, the 19 students interviewed by me attended one and the same school, and the other students attended one and the same school (although another one than the 19 first mentioned).

reasons to believe that it was substantial information about the specific questions in detail and even less that they shared their own answers, but rather that they briefly commented about more formal aspects and the subject of the interviews in general (I know that they said such things as "He asked questions and wanted to hear my thoughts about some stuff," or "It was fun," or "It wasn't terrifying at all"), most of which I had already told the participants in groups beforehand. But I got the feeling that they understood that I wanted *their* opinions and thinking about the matters discussed, and that it would be good for the research situation if they did not share their answers with others, so that they had reasons not to – and I did not get any evidence of any "problematic sharing," like if any student would "repeat" the answers of another student. Hence, I do not think that the opportunity of sharing information between participants had any significant effects upon the outcome of the interviews, and hence that it had no big relevance to the results.

The interviews were audio recorded, for several reasons. First, I did not plan to use any information that was not going to be captured by audio, that is, I did not think I would have any use for a video recording, and for several reasons having to do both with the level of privacy of the students' and the naturalness of the situation, I found it not justified to use video recordings. Audio recordings, however, even though they presented a bigger intrusion into their privacy, seemed justifiable. First of all, of course, the students and their parents had given informed consent, as noted above. Second, it seemed that the accuracy of the information that audio recordings would have given over e.g. taking notes was great enough to balance up the increased level of privacy intrusion that it constituted. Third, it seemed that taking notes would perhaps make the students more uncomfortable than recording audio did. Since I was recording audio, I could give my attention to them and better participate in the conversation, than if I had been taking notes, in which case the situation might have seemed more as a test or evaluation, which was not what I wanted. I also did the recording on an iPhone, and told them that, of course, but due to it being a well-known device, it hopefully contributed to make it feel less frightening. Moreover, due to the good audio quality of its recordings, I could simply put it down on the table besides me, so they did not have to speak into it as in an interrogation. This hopefully both contributed to a more positive experience for them and a more truthful data production. After the interviews had been conducted, the audio was transcribed by the author, and later translated into English by the author as well.

I have not based any analysis on gender theory or any comparison between girls and boys. Such studies of children's reasoning about moral issues have been undertaken, with some signifying that differences between boys and girls do exist (Gilligan, 1982; Wark & Krebs, 1996), while others contradict this (cf. Wark & Krebs, 1996). In the present study, no account of whether the student was a boy or a girl has been taken in the analysis. Hence, I will in the text denote every student as a girl, even though both boys and girls were interviewed. Therefore, no conclusions about differences between boys and girls could be drawn from the results of this thesis.

The interviews not conducted by me were conducted by a fellow doctoral student. In this case, she had the main responsibility for these interviews, but I took part in the decision making leading up to the interviews, such as what questions to ask, what kinds of interviews to use (open, semi-structured, etc.), and how to act in the interviews in case of different

scenarios, through discussions with her. General questions were used, as well as hypothetical situations that were considered morally interesting or problematic. The description of the situations were followed by supplementary questions, concerning what the interviewed student considered it right that the hypothetical student should do, and the reasons for that stated position as well as the meaning of different expressions the student used. The frequency and nature of the supplementary questions were adjusted to aspects of the interview situation such as how much the students talked and the perceived self-confidence of the interviewed student. These interviews were audio recorded as well, and in this case, she transcribed and later translated the interviews. All in all, those interviews was very similar to those carried out by me.

Data processing

In this section, I will address some issues and topics related to the processing of data, something that is oftentimes called "data analysis" or "analysis of data." I find this usage of "analysis" problematic, though. The traditional meaning of the word "analysis" is something like "to determine the parts constituting something complex."[90] The opposite of analysis, taken in this sense, is *synthesis*. The meaning of the term "synthesis" is traditionally something like "the combination of components to form a whole."[91] Hence, synthesis can be said to be a process that is inverse to analysis. Therefore, such methods as the grouping together of different pieces of data into themes, classes, groups, types or categories are, in this sense, synthetical. Many times, in order to do such a synthesis, one must first do analysis in order to obtain or produce the pieces which are to be grouped together. Hence, many times, a study contains elements of both analysis and synthesis.

In recent research, "analysis" has come to be used to denote all processing of data, even though it is sometimes a question of both dissection and composing, i.e. although it is a question of both analysis and synthesis. For clarity, I prefer to use the phrase "data processing" to refer to general work with data in order to acquire results, while retaining the more classical senses of the words "analysis" and "synthesis," as described above. Hence, both analysis and synthesis are examples of data processing, in this terminology (cf. Backman et al., 2012). Unfortunately, using this terminology is quite uncommon.

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[90] The English word "analysis" comes from Latin via ancient Greek (αναλυσις), being a compound of the words "ana" (ανα), meaning "up", and "lysis" (λυσις), meaning something like "loosening." Hence, the historical meaning of "analysis" is something like "loosening up," "breaking down," "dissolving," "dissection" or "decomposition," i.e. extracting the parts of a whole or separating something into its constituent elements. (Svenska Akademien, 2016; Oxford Dictionary of English, 2013)
An example of analysis hence is the breaking down of the word "analysis" into the words "ana" and "lysis."

[91] The word "synthesis" also comes from Latin via Greek (σύνθεσις), coming from "syn" (σύν), meaning something like "with" or "together" or "simultaneous" or "contemporary," and "thesis" (θεσις), meaning "placing" or "putting" or "arranging," and on the other hand "syntithenai" (συντιθεναι), from "syn" and "tithenai" (τιθεναι) meaning "placing" or "arranging", hence "placing with" or "placing together" (Svenska Akademien, 2016; Oxford Dictionary of English, 2013). An example of synthesis, then, is the construction of the word "synthesis" from the two words "syn" and "thesis."

Interpretation

In both the processing of the documents and the interview data, interpretation has played an important role. Hermeneutics, seen as a theory and method of interpretation, has roots dating back to Plato and ancient Greek philosophy (Grondin, 1995; Mantzavinos, 2016; Ramberg & Gjesdahl, 2014; Slattery et al., 2007), although it in more modern times started as a method for interpreting religious texts (Føllesdal, 1979). My usage of interpretational theory and methodology (hermeneutics) will differ somewhat from what I perceive to be a quite typical in contemporary usage in the educational sciences, since the latter is oftentimes quite heavily invested in the modern German tradition of hermeneutics stemming from such writers as Schleiermacher and Gadamer, which might be due to a widespread impression of Hermeneutics as originating from these writers, a view shared by Schleiermacher himself, as noted by Mantzavinos (2016, #1) in claiming that "a general hermeneutics had existed at least two centuries before Schleiermacher offered his own conception at the beginning of the 18th century—so his claim that such a discipline did not already exist before him is simply false." In the following, I will explicate some of the similarities and differences in my description of my own usage and understanding of interpretational theory below.

Plato distinguished hermeneutic[92] knowledge from regular knowledge (*sophia*), in that the latter involves knowledge about the truth–value of utterances, while hermeneutic knowledge is concerned with what is said or revealed (Ramberg & Gjesdahl, 2014). We can understand Plato as stating that hermeneutics is concerned with the meaning, or content, of speech, texts or speech acts, while ordinary knowledge is concerned with whether or not that which is said is true or false. Plato also stated that there is a difference between the meaning of the uttered word, and the thought process that the speaker is trying to express (Grondin, 1995). After the Greek philosophers, the development of theories of interpretation was closely connected to the interpretations of the Bible, being worked on by e.g. Augustine and Thomas of Aquino. Then, in the late 17th and early 18th centuries, the Italian philosopher Giambattisto Vico, in his *Scienza Nuova*, made a great contribution to the theory of interpretation in claiming that thinking always has its root in a specific cultural context, which is a result of the development of history and at the same time intrinsically related to language. As explained by Ramberg and Gjesdahl:

> To understand oneself is thus to understand the genealogy of one's own intellectual horizon [for Vico]. […] The historian does not encounter a field of idealized and putatively subject–independent objects, but investigates a world that is, fundamentally, her own. There is no clear distinction between the scientist and the object of her studies. Understanding and self-understanding cannot be kept apart. (Ramberg & Gjesdahl, 2014, #1)

This idea of the horizon of understanding of the interpreter being an important part of the process of interpretation is an important theme in hermeneutics that had already been acknowledged by Vico, and hence is not exclusive to modern hermeneutics. Analogously, another key idea of modern hermeneutics can already be found in the works of Spinoza,

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[92] *Hermeneutikos* in Greek comes from the Greek word "hermeneuein" which means 'interpret' (Oxford Dictionary of English, 2013).

which is afterwards picked up by Schleiermacher amongst others, namely the idea that the parts of a texts should be understood (or interpreted) in relation to the interpretation of the text as a whole (and also the context in which the text was written, and the mind of the writer), and moreover that the understanding of the whole, in turn, should be understood based on the interpretations of the parts (Forster, 2015). This holistic view on interpretation is a powerful idea that has sparked a lot of discussion and found widespread use in contemporary research. This interpretational process of "going back and forth"[93] between whole and part is often referred to as the "hermeneutic circle" (Føllesdal, 1979; Mantzavinos, 2016). Indeed, it is common to speak of several hermeneutical circles (Backman et al., 2012), where the "text–text part circle" discussed by Spinoza is one of them, and the "text-context circle" (or "object-context circle") discussed by Vico, is another. Yet another one often discussed is the circle of the horizon of understanding of the interpreter, on the one hand, and the text (or object) on the other, once again as discussed by Vico. This idea that one, in interpreting a text, has to be open to questioning one's own horizon of understanding is important for Schleiermacher, in what he calls a "stricter" hermeneutics, the aim of which is the search for a fully adequate understanding of a text (Ramberg & Gjesdahl, 2014), while he believes understanding is not a binary relation, but comes in degrees (Forster, 2015). This could well be accepted by a coherentist, and I think it is one that Peirce would accept as well. Indeed, I think that it is close to insights given by Popper as well, regarding verisimilitude (nearness to the truth) (Popper, 2005).

For Schleiermacher, the process of interpreting the meaning of a text had two main ingredients; a *psychological*, in which the interpreter takes into account information about psychological features of the writer, the context of the writing, and so forth, and a *linguistic*, in which the interpreter aims at "inferring from the evidence consisting in particular actual uses of words to the rules that are governing them, i.e. to their usages and thus to their meanings" (Forster, 2015, #4). As Forster understands Schleiermacher in this second sense, the meaning of a particular word follows from how it is used in particular cases. Schleiermacher's view is interestingly connected to the theory of meaning put forth by Grice (1957, 1969). Grice claims that sentence meaning, i.e. the meaning that sentences typically have in a language, is dependent upon the set of speakers' meanings related to that sentence. A speaker meaning of a sentence is, roughly, the meaning that the speaker is trying to convey to the audience of that speech act by usage of the sentence in question.

Finding meaning

There is an old and rich discussion related to the question of whether there is a true meaning to be found in a text, or if there is not. Dilthey, trying to further Schleiermacher's hermeneutics and trying to give a foundation for the humanities and social sciences (Makkreel, 2012), argues that the hermeneutic scientist must "combin[e] a more intuitive hypothesis-formation [and a] comparative method that would revise and secure the

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[93] One way of understanding this, and the goal of this process, is that it continues until one reaches a reflective equilibrium – a concept examined thoroughly by Rawls (1971), and connected to abductive reasoning and coherentism as a theory of justification, as we shall see below.

objectivity of this process," (Ramberg & Gjesdahl, 2014, #3) the idea here being that an initial hypothesis should be put to the test by a "critical, empirical investigation […] aiming at revision or improvement of the initial hypothesis" (Ramberg & Gjesdahl, 2014, #3). This connection between hermeneutics and hypothesis testing is revitalised by Føllesdal (1979), who claims that hermeneutics is, in fact, the use of the hypothetico-deductive method on meaningful material, by which he means systems of beliefs and values of human beings. For Føllesdal, hermeneutics is the "general method of interpretation of human actions and all products of such actions" (1979, p. 320). That is, he understands it as a method, and as a method with a broad application. It applies to interpreting both speech, texts and actions. Some scholars speak of a *philosophical hermeneutics*, but with Føllesdal, I shall here consider hermeneutics to be a method, or a set of methods. This view is also championed in a, as of the publication of this thesis, yet unpublished, but pre-published, entry on Hermeneutics on the Stanford Encyclopedia of Philosophy (Mantzavinos, 2016).[94] Then, with a realist ontology, there is a true meaning "out there", since it can be mind-independently[95] true that some person has a certain set of beliefs and values, and it is this truth that we aim at justifiably reaching, through our interpretational process. On this account, we must go back and forth between theory and observation/data, which is in accordance with hermeneutical thinking, but also is found in Rawls' (1971) idea of the reflective equilibrium. This connects, as we shall see below, hermeneutical reasoning with abductive reasoning and coherentism (Hansson, 2007; Jäger, 2007; Rescher, 1974), both of which can be used both theoretically and methodologically to further develop the idea of how this spiralling is to be carried out, what logic it can adhere to, and how to carry out the process of interpreting and understanding.

Understanding is at the core of the act of interpretation. Many would say that the very reason to interpret is to understand the subject or object in question. Schleiermacher holds that the nature of hermeneutics is the art of understanding, although he claims that misunderstanding is far more typical than understanding, which is the reason why understanding must always be sought (Forster, 2015). And for Gadamer, dialogue is central to understanding (Malpas, 2015). In the words of Ramberg and Gjesdal, he sees dialogue as the "mode of progress of understanding" (2013, #9). This view is shared by McDowell (1994), as will be discussed more below. For Gadamer, entering into a dialogical relationship with a text through interpretation is the movement of understanding that he calls *the fusion of horizons*. After having understood what first seemed strange or unintelligible, we understand the text better, but also ourselves. In this sense, what seemed to be different points of view, with different horizons visible, have now become merged. The knowledge that comes out of this process is, for Gadamer, something similar to Aristotle's *phronesis* (Malpas, 2015), which can be

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[94] This entry was first pre-published on the 22nd of June, 2016, and it might still change before its publication date, the 22nd of September, 2016.

[95] It should be noted here, that in the case of beliefs, "out there" is actually inside someones mind. But one could still be realist about such objects of the mind as beliefs and values, because they are still mind-independent in that it is the fact that S believes A, or has the value V, (let us call that fact F) that makes it true that S has the belief A (or value V), but not that any agent beliefs that S believes A (or has V), that is, not that any agent beliefs that F. It would be mind-dependent in case that, for example, if the majority of the people would believe that F (i.e. that S believed A), then (and only then) would it be true that S believed A, or if it was the case that public discourse determined whether F was true (i.e. it was true that S believed A). (cf. Miller, 2014)

explained as practical intelligence (Rapp, 2010) or practical wisdom (Kraut, 2016; Miller, 2012), and sometimes moral wisdom (Hursthouse, 2013).

The relation between ontological views, for example realism, and theories of interpretation in general, and modern hermeneutics in particular, is complex. It is not easy to claim that all hermeneutics must share a single ontology. Indeed, Mantzavinos explicitly rejects that view, in claiming that "[a]lthough epistemological studies on hermeneutics can, they *need not* share [Scheiermacher's or Gadamer's views on ontology,] or any other commitments with respect to ontology" (Mantzavinos, 2016, #1, italics in original). And Plato, who, as we have seen, has some ideas akin to a theory of interpretation, was a realist (some would say, *the* realist). Vico, too, seems to accept the idea of the existence of truths independent of human thinking, as he also discusses the distinction made by Plato that we have on the one hand what Vico calls "the true" (which is what science is about) and on the other hand "the certain" (that which is a result of human actions and choices, which is what is the subject of what he calls "coscienza", by which I think he refers to what we now would call humanities and social sciences) (Costelloe, 2016). So, for Vico, there seems to be a truth about some things, but the methodology of the natural sciences cannot simply be transferred to the social sciences and the humanities in his view. That, of course, can be challenged, as I have discussed above. And Dilthey, a notable scholar within (more modern) hermeneutics, affirmed realism (Makkreel, 2012).[96]

Although classical hermeneutics have not explicitly affirmed it, abduction fits well into a general interpretation theory, to say the least. In fact one could argue that abductive reasoning is necessary for, and implicit in all, interpretation. And the fact that classical hermeneutics does not affirm this is unsurprising, since abductive reasoning was "discovered" quite recently (and also due to the inaccessibility of Peirce's writings, as discussed above). Many proponents of abduction would argue, though, that it has nonetheless been used before, albeit not intentionally (Lipton, 2004). And indeed, writers such as Rorty have attempted to unite hermeneutics and pragmatism (see Rorty, 2009). And since there are strong reasons to hold that abduction leads to realism, then realism and hermeneutics should go well together, albeit that this insight might mean that some of hermeneutics needs to be changed and reinterpreted; nonetheless, the ideas that I have used are such that I have conceived them as fitting in a realist framework.

Another idea that fits well with hermeneutical thought is coherentism, by which I here mean the coherence theory of justification (not of truth), which can be sketched as the position that a belief is justified insofar as it coheres with a set of (other) beliefs, or that it is

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[96] Even Gadamer, as I understand his view through mostly secondary sources (see e.g. Ramberg & Gjesdal, 2014; Malpas, 2015), seems to have held there to be a world external to us, seemingly also independent of us in the realist sense, but also to have had some epistemological views that differ from what many realists would hold – but, again, these being epistemological views (views about our knowledge about the world, interpretation of the world, perception of the world, understanding of the world, etc.), do not trivially oppose realism, since realism is an ontological theory (as I have here defined it). For example, the view that all understanding demands pre-judgement (prejudice) does not (directly) have to do with whether or not there is an objective truth (or, even more fundamentally, an objective state of the world). And the view that we can never arrive at the truth since understanding is an ongoing process is a view that does not contradict the view that there is a truth out there, if anything, rather the opposite. Even Heidegger seems to have accepted realism and a correspondence theory of truth, although Heidegger would claim that correspondence truth is just a special case of "original truth" (Wheeler, 2015), a notion which I will not try to deal with any further. The point here is only that realism is not directly in opposition to hermeneutical ideas, which it seems not to be.

justified if, an only if, it is included in a web of beliefs which is coherent. Coherentism most directly stands in opposition to foundationalism, the idea that there are some beliefs (foundational ones) upon which the justification of all other beliefs depend, directly or indirectly, but which themselves are of a different kind (Gardelli, Persson, Haglund, & Backman, 2012). Foundationalists might hold that foundational beliefs do not need justification at all, or at least that there is one foundational belief that needs no other justification than that it is not inconsistent (Goldman & Pust, 1998); that foundational beliefs are self-justifying in some sense (Pust, 2000a; 2000b), or that foundational beliefs are directly justified by reason or intuition (Bealer; 1996; 1999; 2008; DePaul & Ramsey, 1998). But coherentists deny this, and claim that the justification relation can hold both ways between any two statements (Audi, 2002). Some coherentists have suggested that we (ought to) strive towards obtaining a more coherent system, a system where every belief coheres (perfectly) with the rest of the system, a balanced state often called "reflective equilibrium" (Daniels, 1979; Rawls, 1971). This idea of reflective equilibrium in particular, and of justification as coherence in general, fits well into what has above been characterised as hermeneutical circles, for example the idea that the whole should be understood in relation to the parts, and vice versa, and I have used it for understanding both the idea of hermeneutical circles and the concept of the fusion of horizons, which can be seen as entering a dialogical relationship with that which is to be understood. Hence, coherentism can be used to understand and justify ideas from hermeneutics. And abduction, quite clearly, is compatible with coherentism.

McDowell has also proposed theories that correspond interestingly with hermeneutics. Understanding, for McDowell (e.g. 1994), consists of entering into a form of dialogue with what is to be understood, and this demands a willingness to maintain a certain, discursive, openness toward the other participant in the dialogue, in the sense of holding it a possibility that this person is right, or, at least, not to presuppose the correctness of one's own perspective. That is, to be in dialogue, one must suppose that one might be wrong oneself, and the other party right, in some sense. This idea corresponds to Bakhtin's ideas of dialogue, as we have seen. It is also an idea that Gadamer would accept (Ramberg & Gjesdal, 2014). And it is an idea that seems to presuppose the possibility of being right or wrong, that is, of some kind of truth. And indeed, McDowell has defended realism, even moral realism (McDowell, 1994; Smith, 2002).

As argued by Blackburn, as we have seen above, abductive reasoning is strongly connected to realism. And coherentism is at least broadly taken to be compatible with realism, although there are some arguments against coherentism that claim that coherentism has trouble explaining the role of the facts for justification; but the standard coherentist response has not been to deny realism, but rather to try and show how these positions can be reconciled. The reasoning above seems to suggest that realism does not (at least trivially) deny the thin hermeneutical theory presented above, which is also justified by the fact that the central ideas of interpretation theory discussed have been proposed and defended from outside of (mainstream modern) hermeneutics, as we have seen. Hence, it seems that these theoretical and methodological theories can coexist in the same study, and even more strongly, that they fit quite well together.

Some sketchy concluding remarks about interpretation and understanding can then be made. Interpretation is the act of trying to create understanding of the meaning of something (for oneself). In the process of understanding, the more close to the truth about the text (or the web of beliefs, and other mental states (such as values) of the person) that my beliefs about (representation of) that text (or person's mental states) is, the higher the degree of my understanding. And the closeness of truth (cf. *verisimilitude* (Popper, 2005)) of my beliefs can be approximated by a higher degree of reflective equilibrium, a higher degree of coherence, between the data available and my beliefs, or, the abductive strength of the conclusions I draw from the data.[97] Methodologically, then, the text should be read and thought about several times, thereby forming hypotheses and partial understandings of the text, through utilising a going back and forth between my understanding of a part and of the whole, as described by Føllesdal, trying to draw the best abductive inferences possible from the data, and seeking a reflective equilibrium. Abductive reasoning, therefore, and hence also realism and the concept of truth, are of fundamental importance to interpretation and understanding, in this view.

Processing document data

When reading the texts, coloured markings were used to keep track of formulations that were regarded as possible references to ethics, and by that method a first note on categorisation was made. The texts were then read several times, first with the aim of finding other possible references, and then again in order to analyse and interpret the sections selected.

In interpreting the texts, I tried to follow much of what I have outlined above regarding theory and method of interpretation. In reading the texts, I thereby was going back and forth between my own understanding of the subjects under scrutiny and my interpretation of the texts. In interpreting the text, I tried to interpret the pieces in relation to the whole, and vice versa, thereby going back and forth between my interpretation of the whole and the pieces. In this process, abductive reasoning was used throughout, in the sense that the interpretations with the best explanation values were chosen.

For Schleiermacher, as discussed above, the process of interpreting the meaning of a text had two main ingredients; a psychological and a linguistic. Whether or not there is a true meaning to be found in the texts, the linguistic part of the interpretation process is likely similar to the interpretations that teachers will do (although that process might be less deliberate or theoretically aware). My analysis resembles this process of linguistic interpretation, and hence is relevant for what teachers do in school based on their interpretations of the curriculum. This is one reason for holding the interpretations made in the present study to be of relevance to a school praxis, which justifies the chosen methods. When such terms as "refer" or "mean" are used in relation to answering this research question, I intend them to be read with these considerations in mind.

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[97] It should be noted that I use the term "approximated," and that it is a question of an abductive inference, which means that it is fallible (as is discussed concerning abductive reasoning below). We have to go with the available data, but given that I lack key information, important data, my attempts at understanding might be terribly wrong, and not close at all to the truth. Indeed, a hypothesis that seems obviously inferior given the available data might, in fact, turn out to be much more close to the truth about the beliefs of a person. Hence, we cannot say that the understanding *is* higher given a higher degree of reflective equilibrium between the data and my interpretation of a person's beliefs.

As discussed above, a major set of problems to be dealt with when doing qualitative research is related to lack of a detailed and explicit description of the data processing (Boeije, 2002). This has several drawbacks. One is that transparency of the study is limited (Miles & Huberman, 1994). This in turn means lower reliability and lower trustworthiness of the study (Miles & Huberman, 1994), as discussed above. It means that it is harder to reproduce and harder to critically examine what has been done. This has a negative result on the validity of the research. Even if one does not believe it is possible to fully reproduce qualitative research, there are still reasons to provide this information. Here is a brief outline of the processing of this data in order to answer the corresponding research question:

1. The curriculum, including the syllabi, was read in full, from the beginning to the end, without any specific idea of what to look for, besides that the text (which was, at the time, planned to be an article) was supposed to be about technology and ethics. This was done in order to get an overview of the texts, and in order to facilitate the emergence of interesting themes to later be studied more thoroughly.

2. As I read, I marked every passage that I found interesting or relevant in relation to this aim.

3. I re-read the texts, still making marks. It struck me that there were quite some differences amongst the sections that were being marked, but I did not know what these differences exactly consisted of.

4. When I had a large set of marked sections, I then cleaned up the set, looking it through several times in order to discard all those sections that were not about ethics. In doing this, the marked texts were not read in isolation, but in relation to the surrounding texts and in the context of my understanding of the curriculum as a whole. In some cases, I think that my interpretations were different than had I read that particular section of text standing by itself, detached or "in a vacuum," so to speak. Some portions were discarded that might otherwise have been interpreted as being about ethics, and also some sections were included that probably would have seemed not to be relevant, had they been read in isolation.

5. In parallel with working with this material, I was working on the foundations of what later came to be the article "Why philosophical ethics in school" which started as a theoretical investigation into different possible understandings of ethics in school. I saw that the distinction that was being drawn in that article draft, between three different approaches to ethics in school, was interesting in relation to the curriculum, since there seemed to be traces of every one of these approaches in the passages that I had marked thus far.

6. The marked sections were grouped, those that explicitly contained the words ethics or ethical into one group, and those that did not use any of these words in the other group.

7. I then decided that the use of the above mentioned theoretical framework stemming from the other article draft would be interesting to use in clustering and sorting the data produced so far. That is, that distinction would be used for synthesis of the data.

8. I now worked through the material once again, now colour coding each marking, blue for the descriptive ethics approach, yellow for the value transmission approach and green for the inquiry ethics approach, and then one colour (pink) for cases where there seemed to be several approaches intended, or where I was more uncertain about how to interpret the section in question, or where the distinction seemed unable to bring clarity to what was said, and the like.

9. I then read and worked through this material several times, questioning my interpretations, comparing the interpretations of the different data pieces with the picture I was getting of the text as a whole (and the different main parts (the general section on the one hand, and the set of syllabi on the other, and also each syllabus as a whole on its own) of the text as wholes as well). In this process, I also read the law and the preparatory works, to obtain a context for the texts I was interpreting.

10. Some initial categorisations were changed, and the pink markings (there were not so many of them) were, in the light of the interpretations of other parts which could shed light on the meaning of that specific sentence, reconsidered, and then placed in one of the other colour classes, if that seemed a correct interpretation. In some of these cases, I noted that there were reasons to interpret a particular formulation as belonging to one cluster, but also reasons to hold it to belong to another cluster. This was noted in the text. That is, not every difficult case seemed clear enough to be put into one single group. What this means is explored in the results section.

11. The data pieces were then worked through again, now explicating what reasons I had found for interpreting the particular part of the text the way I had, in order to make the interpretations transparent, and to make the interpretational process reliable and more reproducible.

The first two steps seem to me to be more or less purely a matter of analysis. Then, since interpretation is both synthetical and analytical, the following steps have elements of both analysis and synthesis. From step 8 and onwards, it seems to me to be synthetical processing.

In the conclusions I will present a comparison of the importance of each approach in the sections here considered. In making this qualitative assessment, the following factors have been taken into account, together with my overall impression of the material: the number of references to each approach, the number of curricula where the approach was referred to, and the "importance" of the different references. First of all, explicit references have been considered more important. And second, some certain references have been considered more important than others, if they make very strong claims[98] or have a central role in the curricula. Moreover, clear references are considered more important than vague or uncertain ones, e.g. ones where the interpretation of them as cases of one or the other approach is very uncertain.

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[98] By "strong claims" I foremost mean strong in terms of argumentation analysis and logic, but to some extent also in comparison with ethical theory, and moreover in relation to the claim's perceived interpretational centrality, which might be understandable in terms of coherence within the class of interpretations of the text parts and wholes.

Processing interview data

The interviews were recorded, and after the interviews had all taken place, I transcribed them, which gave a great opportunity to gain a deeper understanding and a closer relation to each interview. Indeed, there are methodological problems concerned with transcription of interviews (see Poland, 2002; Potter & Hepburn, 2002), for example that already in the transcription, some interpretation is carried out and some theories are invoked in choosing what to include in the transcription. For example, Potter and Hepburn (2002) argue that interviews should be transcribed in a way that captures the action, by e.g. visualising the length of different vowels. While I can see benefits from doing this in some research, I do not consider it of great importance in this case. I consider the transcription of the interviews to be quite unproblematic in the current case. It would, e.g., be more problematic if one sought to do some kind of analysis based on the moods of the respondents or consider other psychological or emotional expressions of the interview. But I was in this case only interested in what arguments were given, and I am, with a few exceptions (which are discussed in the results section), not performing any (as far as I can see, at least) interpretation of what arguments they are giving based upon other evidence than what was said in clear speech, that is, what corresponds to explicit text, and not on doing any analysis based on such things as how quickly the participant responded.

Several authors claim that it is generally a problem with qualitative data that the research seldom has a satisfactory description of how the data processing has been carried out. For example, Boeije (2002, p. 392) notes that "[r]esearchers often describe at great length how their studies were carried out, but remain vague when it comes to giving an account of the analysis." As noted above, some problems that need to be addressed in qualitative studies were discussed above, of which several relate to the processing of data; the risk of researcher bias is related to data processing, as well as to other steps in the research workflow. The problem of repeatability of analysis and obtaining results is clearly connected to the (lack of) transparency of data processing; if what is done is not described, how can it then be reproduced? The quality of conclusions depends on how data processing has been carried out, and hence the credibility of those conclusions is furthered significantly if readers are given information about how the data processing has been done.

A problem with describing (and likewise with reproduction of) data processing in qualitative research, though, is that it tends to be tightly connected to the individual researcher (or researchers) who conducts the processing. Central to theories of interpretation, as we have seen above, are ideas to the effect that interpreting (which is an important part of (much of) the processing of qualitative data) is unique to the interpreter, since interpretation, somewhat loosely described, can be said to be the meeting of the text and the interpreter. This problem has to be dealt with in describing how the data processing has been carried out.

Miles and Huberman (1994) describe what they call "tactics for generating meaning." One of these is *seeing plausibility*; sometimes something just seems right, a hypothesis is formed on the basis of it seeming to fit with the data – this connects to what is discussed in relation to Hanson (1960) below. Another tool is *clustering*, which is a form of synthetical reasoning where particulars are grouped together in classes or types, more or less formally and explicitly, thereby moving to a higher level of abstraction and generality. They also claim (as

discussed above) that qualitative research includes counting, more or less explicitly. Two other tools are *making contrasts or comparisons between different pieces of data* and *partitioning variables*. Sometimes, Miles and Huberman claim, qualitative researchers are a bit too keen on finding beautiful, general links between things, making everything fit under one powerful umbrella. Therefore, partitioning is also important, so that one does not distort the data. There are also tools for seeing things and their relationships more abstractly, one such being *including subsuming particulars into the general*, and another one being *noting the relations between variables*. Finally, they present and discuss tactics for systematically assembling a coherent understanding of data, e.g. building a logical chain of evidence and making conceptual/theoretical coherence (Miles & Huberman, 1994).

The first step of the data processing of the interview data was the transcriptions of the interviews into text. As noted elsewhere, I chose to include only those aspects of the interviews that were convertible into standard text.[99]

The second step of processing the data was to interpret the interviews. The interpretation was inspired by several ideas described in more detail above. The transcriptions were read several times, thereby going back and forth between my own understanding of the subjects under scrutiny and my interpretation of the transcriptions. The idea that the parts of a text should be understood in relation to the interpretation of the whole, which in turn should be understood based on the interpretations of the parts, has been used. These interpretational processes were repeated several times. Hence, in trying to understand parts of the interviews used in relation to a certain topic, utterances the students had made in response to other questions in the interview were sometimes used to acquire a better understanding of the student's reasoning in the particular case at hand.

For reasons discussed several times above, here is a brief outline of the processing of this data in order to answer the corresponding research question:

1. When performing the transcription of the interviews, which I consider to be a part of the data processing, I first listened to the whole interview once, to get a picture of it as a whole, and then I started to work with transcribing smaller pieces of it. I did not explicitly search for anything in the texts yet, but it can be argued, and I find this reasonable, that interpretation already starts here.
2. When all the interview recordings were transcribed to text, I began to work with interpreting the interviews more deliberately. The interpretation was inspired by several ideas described in more detail above. The transcriptions were read several times, thereby going back and forth between my own understanding of the subjects

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[99] This means that I generally did not preserve such things as the length of pauses, what words or parts of words that were emphasised, the melody of the speech, the usage of small sounds such as "ehr" and "hm" that do not correspond to words, but such small words as "like" (in Swedish: "typ," "ba," "liksom," etc.), and those kinds of elements of spoken communication. There were some exceptions to this, though. I did note if there were long pauses, where the student seemed to be about to speak, or in between statements by the student. I did not note anything more than that it was a long pause, though, I did not time it with precision. And I did write some notes down, as when one student was waving in the air to show how to use an adjustable spanner. And there was also one note that actually had a bearing on my interpretation: Even though I had decided in advance not to write things of this kind down, I did make two notes of occurrences in the transcriptions of the material, because they were very obvious to me at the time, and they had an impact upon my immediate interpretation of the text that I was aware of. I will discuss the implications of this elsewhere.

under scrutiny and my interpretation of the transcriptions. The idea that the parts of a texts should be understood in relation to the interpretation of the whole, which in turn should be understood based on the interpretations of the parts, was used in this process.

3. As possible topics started to arise, I began to note these in a separate document.
4. After having come up with several topics I considered more or less interesting, and which seemed to me to more or less strongly relate to what was discussed in the interviews, I started to read the interviews again, now looking for parts of the interviews that were interesting in relation to each respective possible topic.
5. I now started to form these topics as theses, and started to gather parts of the interviews that could be considered support and arguments in favour or disfavour of possible positions in regard to the thesis in question.
6. In this process, some new theses were found, e.g. by seeing that what I had considered to be one topic, theme or cluster, could actually be divided into more than one thesis.
7. When I had a collection of theses, and raw interview material gathered in relation to each one of them, I collected it all in a document and tried to decide which one of these would be best to start writing about, concerning its interest to research, to my aim of the research project, and also the strength of the evidence (some theses did not have very much raw material related to them).
8. At this point, two theses were chosen as more suitable than the rest. At this point, I divided the data processing into two branches accordingly.

I will now start by outlining the processing steps taken in regard to the first of these above mentioned branches, the question about how students' reasoning was related to the values given in the curriculum, and the thesis that their reasoning is in conflict with values given in the value foundation of the curriculum.

9. I now returned to the whole material again, to see what parts of it could be of interest to this thesis, and tried to criticise and reevaluate my prior interpretations. I now interpreted the different statements on the background of the question I was now asking, to try to make sure that the data was representative and relevant to the question, and that my interpretations were as fair and as unbiased as could be.
10. Next, I compared the different statements and related them to theories about ethical reasoning, as discussed in the chapter about the theoretical background, and to prior research in the field.
11. After that step, I revisited the above interpretations several times, questioning whether my interpretation of a certain statement as constituting an example of a certain type of normative reasoning was correct.

In the case of the question of students' reasoning about Internet behaviour, a similar process was being used.

12. I now returned to the whole material again, to see what parts of it could be of interest to students' reasoning about how to act online. At first, I did not find the right way to cluster the statements. I tried several different ways of understanding the material, but they did not seem to represent the material, and they were not interesting enough.
13. After I while, I realised that one thing of interest was that there seemed to be quite a strong consensus around some issues of privacy. I made a first approximation of a clustering and systematisation of the material. One of these was a cluster regarding how students view privacy: what constituted private information, and how to treat such information. Another cluster was students' statements about adults' views of, and opinions about, these matters.
14. Thereafter, I compared these clusters regarding the students' reasoning to how they claimed that adults said that one should act, there were striking similarities.
15. I now dug deeper into prior research and found that prior research had found that adults' typical views and opinions were pretty much in line with what the students in my study claimed adults say. Moreover, other research found that students actual online behaviour was not very much in line with how students claimed that one ought to act.
16. After this step, I revisited my initial clustering, and now did a comparative synthesis of the material, relating the students' statements to what had been found in prior research.
17. After that step, I revisited the above interpretations several times, questioning whether my interpretations were correct.

The finding of varieties in students' moral reasoning, and the data processing related to these results, was a bit different than described above, since we were two researchers working together on an article (Backman & Gardelli, 2015), hence performing data processing together, as described below. After that article was published, I kept working with this material, so that what is finally presented in this thesis in some cases differs from that article.[100]

The quotes that were picked out and presented in the results section below comes from a large number of the participating students. In many cases, as sometimes also noted explicitly in the results section below, there were several similar examples, in which case some have been left out. I have not mainly been interested in statistical interpretation of the data, although some pseudo-counting have indeed been used, in the sense used by Miles and Huberman:

> A lot of counting goes on in the background when judgments of qualities are being made. When we identify a theme or a pattern, we're isolating something that (a) happens a number of times and (b) consistently happens in a specific way. The number of times and consistent judgments are based on counting. When we make a generalization, we amass a swarm of particulars and decide, almost unconsciously, which particulars are there more often, matter more than others, go together, and so on. (Miles & Huberman, 1994, p. 253)

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[100] See appendix 1 for more information about this.

But although such reasoning has indeed been used, and although the facts that the used quotes come from many different students and that there are often several similar examples, representativity is not as important in this study as in many others. My main conclusions have not been based on assumptions that my results are generalizable. Indeed, in some of the cases, what I have concluded is simply an existential claim (in predicate logic terms), and for such an inference, only one positive instance is needed. In other cases, I have noted that based on the present study, hypotheses could be generated, which might be tested in future research, involving data more appropriate for statistical analysis.

Interviews conducted by another PhD student

As stated above, for the findings concerning six forms of varieties in students' moral reasoning, data from five additional interviews, that were not conducted by me, were used in conjunction with my data. These were conducted in a similar manner to those described by me above. Before the interviews, we discussed how to perform them, several methodological considerations, and such questions and matters.

After these additional interviews, the other PhD student reviewed the students' responses by listening to the interviews, carrying out transcriptions, and reading the transcripts in several cycles. In processing the material, we used the distinction between decision methods and criteria of rightness. The "criteria of rightness" are principles determining whether a given action is morally correct or not, while the "decision methods" are general ways of behaving in practical matters (Tännsjö, 1998). For instance, some utilitarians advocate the rightness criterion called "The Principle of Utility," which has been described by Jeremy Bentham as:

> … that principle which approves or disapproves of every action whatsoever, according to the tendency which it appears to have to augment or diminish the happiness of the party whose interest is in question: or, what is the same thing in other words, to promote or to oppose that happiness. (Bentham, 2000, p. 14)

According to Tännsjö (1998), one should utilise a decision method that corresponds well to one's criterion of rightness. Accordingly, one alleged decision method for utilitarianism is to attempt to maximise expected happiness (Tännsjö, 1998).

We also utilised a principle of moral rightness often attributed to Kant. Decision method and rightness criterion are often conceived of (e.g. Bales, 1971; Hare, 1981; Sigdwick, 1907; Tännsjö, 1998) as two relevant parts of a moral framework.[101] Henceforth, these will be denoted as different moral reasoning "dimensions."

The analysing process proceeded in accordance with the following steps (1-6):

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[101] But one might have a decision method that is very closely related to one's criterion of rightness. Hence, for each case, in our analysis, the attempt was to try to interpret whether the student meant a certain statement as a decision method, a criterion of rightness, or both. In this context, Kohlberg's discussion of deontic judgements versus judgements of what is right might be of interest (Kohlberg, 1984). Moreover, it should be noted that rightness criteria can include principles determining whether a given decision method is good or not, and not only principles determining the moral status of a certain action.

1. The transcriptions were read several times, and sections of interest were marked down for further review.
2. The highlighted material was interpreted in attempting to categorise the different parts as being either reasoning in the decision method dimension or the criterion of rightness dimension. Parts of the texts were interpreted in relation to the interpretation of the whole, and vice versa.
3. Each extract was interpreted on the basis of our understanding of classical and contemporary ethical theories. The aim was to understand the nature and type of reasoning that the student was expressing, and facilitate comparison. The parts were classified according to the type of value it expressed, or what kind of normative theory or moral position that coheres with that section of reasoning. For example, if two students would have expressed reasoning based upon two different perceived virtues, both utterances would have been characterised as expressing virtue ethics.
4. The interpretations were revisited, searching for errors or discrepancies in our interpretations.
5. Each extract was now classified according to (i) which student expressed it, (ii) its dimension of moral reasoning, and (iii) its moral value type.
6. The data were synthesised by comparing the extracts, searching for interpersonal variety in the decision method dimension, in the criterion of rightness dimension, and in between the dimensions, as well as intrapersonal varieties of the same forms. (For instance, a case of interpersonal variety in the decision method dimension consists of two extracts from two different students, both being in the decision method dimension, and expressing different moral values or ethical theories.)

Finally, it is important to point out that we are not certain that we fully understood the intentions behind the students' utterances. Indeed, we are aware that there are other possible interpretations. The attempt was to arrive at justified interpretations.

Abductive reasoning

Miles and Huberman capture the importance of having good methods for drawing conclusions in stating that "[q]ualitative analysis can be evocative, illuminating, masterful – and wrong" (Miles & Huberman, 1994, p. 262). Hence, we need to address the reliability of the methods, and they argue that indeed, there are ways of judging "the goodness" (Miles & Huberman, 1994, p. 262) of qualitative research, and there are correspondingly ways of making one's research more trustworthy. Being proponents of qualitative research, they state some problems regarding the ways in which much qualitative research depends on the individual researcher, discussing the results of several studies on people's abilities to form judgements and assess causality, and conclude that "people are rotten scientists, relying heavily on pre-existing beliefs and making bias-ridden judgements. They find patterns in random data [and] see what they want to see […]" (Miles & Huberman, 1994, p. 262). This makes further

sense if seen in the light of Hanson's (1958) conclusions that observations are theory-laden.[102] In light of this, it is paramount to invoke and clearly describe methods and theories for justifiable conclusion drawing in a study like this one, and also to elaborate on how interpretations have been carried out. In response to this, I have tried to be quite explicit about my interpretations and been quite careful about giving arguments behind my reasoning throughout this thesis, which sometimes can make reading a bit tedious, but which on the other hand brings transparency and thereby furthers repeatability and trustworthiness of the study, hopefully making critique of it attainable.

There are several strengths of using qualitative data that are often put forward by proponents of qualitative research, and which I have tried to capitalise on in the present study. Miles and Huberman claim that "[w]ith qualitative data one can […] derive fruitful explanations [and they] are more likely [than quantitative data] to lead to serendipitous findings [and to] generate or revise conceptual frameworks" (Miles & Huberman, 1994, p. 1). As will be more evident below, this thesis has hopefully contributed to such a furthering, or revision, of a conceptual framework for thinking about ethics in education; for example the theory developed around the three approaches to ethics in school, and also an idea about several new kinds of varieties that can be identified in students' moral reasoning, which might be used in future research. I have also been seeking to present some possible explanations of some of the results, and in those cases used the richness of the data to arrive at reasonable explanations, and also to present justification to the alleged explanations.

It is often suggested that only the quantitative (or the natural) sciences use the hypothetico-deductive method. (Føllesdal, 1979) Indeed, one of the pillars of deductive reasoning in science is the hypothetico-deductive method. This method can, very roughly, be divided into two important steps; first, the creation of hypotheses, and second, the deduction of consequences of these hypotheses, which are in turn measured against our data and prior justified beliefs, in order to examine the hypotheses in question. But Føllesdal (1979) argues that the hypothetico-deductive method is at the heart of hermeneutics, and hence central to qualitative research. In accordance with this, I have used hypothetico-deductive reasoning prominently in the abductive reasoning, both in interpretation and in the drawing of conclusions based on the data processing, as will be outlined in more detail below.

The standard account for hypothesis testing is given by Popper (2005) in his seminal work *The Logic of Scientific Discovery*.[103] In extremely brief terms, this can be described as a systematic attempt to falsify the hypothesis, that is, to find evidence that contradicts the

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[102] In relation to interpretation and the fact (if it is one) that observations are theory-laden, it should be noted that there is a risk of me "seeing what I am used to seeing", in that I have an extensive experience in teaching ethics courses at university level, and hence am used to helping students distil their reasoning in terms of underlying normative theories. This knowledge in ethical theory is also an asset in this interpretational work, but there are also these risks that I have been aware of in the interpretational process and in the abductive reasoning.

[103] The English name of this book is peculiar, as noted by Hanson (1960), since Popper is in fact not directly concerned with the logic of scientific *discovery*, but rather of the testing of already given hypotheses. According to this account, a theory (set of hypotheses) should be put to the test by trying to find observations which are incompatible with it. If such observations are being made, the theory is falsified, and should be rejected (on the cruel and rough description of his ideas – on a slightly more detailed account, a theory is falsified first after the corroboration of any falsifying hypothesis). It was originally published in German in 1934 (imprint "1935") with the title "Logik der Forschung," which is a better name, in my opinion. Why it was not translated into "The Logic of Research" is beyond my knowledge.

hypothesis, thereby showing it to be false. But if one conducts what can be called "explorative," or "hypothesis generating," research, the way to proceed may be very different. Explorative research can provide new (types of) information about a subject matter, and thereby facilitate generating new hypotheses or theories; and qualitative research is one candidate for such *exploratory* research, as we have seen above (cf. Miles & Huberman, 1994), and some specific kinds of reasoning might be needed (Hanson, 1960). This kind of research might then produce hypotheses and theories that can be tested by hypothesis–testing research methods and designs. It is a standard idea of modern logic that if one wants to assert an existential claim, it suffices with one positive instance of this to warrant the inference to the existential claim. And when one has asserted the existential claim, one might construct a general hypothesis about the frequency of such occurrences, to be tested in a hypothesis testing research, using quantitative methodology. But then, for constructing the hypothesis in the first place, potentially there is no need for large numbers of participants, since those aspects of the research will be carried out in a hypothesis testing research setup.

In the present research project, the main undertaking was not to test any hypothesis. Instead, the present study can be considered to be exploratory research. As such, I was interested in generating theories about ethics in school, which could in future research be tested by standard procedures for hypothesis testing. In the results and discussion sections, I will argue for some existential claims, and in those cases have used the idea of inferring an existence claim from a single (or low number of) positive instance(s). I also generate some hypotheses about relations between students' reasoning and different elements of the school environment and the educational system, and these are meant to be understood in the sense presented above.

As has already been indicated on numerous occasions, I have made extensive use, both in the data processing and in the discussion of the results, of a form of reasoning that is sometimes called "abductive reasoning" (Douven, 2011), and sometimes also referred to as "inference to the best explanation" (Lipton, 2004), which has been quite widely discussed recently. (Blackburn, 2002; Douven, 2011) Abduction – named so by Peirce, whose writings are not so accessible since they were collected and published posthumously (Burch, 2010) – is a form of reasoning where different possible explanations of a certain observation are compared, and the one which best explains the observation is taken to be justified.[104] Hence, abductive reasoning is fallible, meaning that it can turn out that something that was considered justified at one point can be considered unjustified at another. That is, abductive reasoning cannot be said to produce conclusions that are as certain (in relation to the premises used) as does deductive reasoning. Abductive reasoning hence produces conclusions that do not follow by standard (truth functional) logic. But abductive reasoning is fairly entrenched in our everyday thinking, and in scientific reasoning as well (Douven, 2011; Lipton, 2004). Abduction seems well in harmony with hermeneutics, and it has been argued, by Lipton (2004) amongst others, that it is indeed of great importance and value in scientific

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[104] A common formal definition of abduction runs as follows: "Given evidence E and candidate explanations $H_1, …, H_n$ of E, infer the truth of that H_i which best explains E" (Douven, 2011, #2). There are problems with this understanding of abduction (an obvious one being that whether or not H_i is the best explanation depends on its competition, so how the set of possible hypotheses is constituted – one way to handle such a situation might be to add the condition that H_i should also be good enough (cf. Lipton, 1993)), but it suffices to give the broad idea.

reasoning – even that it "is the very heart of scientific theorising" (Blackburn, 2002, p. 130). Moreover, abduction can handle some problems that seem otherwise hard to solve, for example problems of underdetermination (Douven, 2008; Lipton, 2004). It also seems compatible with realism, to say the least; indeed, it seems that realism is a very reasonable base for abduction (maybe even *the best*? (cf. Lipton, 1993; Lipton, 2004)). Blackburn goes even further, and claims that realism follows from abduction, as we will see, and from this it follows that realism is the only theory (of the theories in competition with it) that is compatible with abduction, and hence, it is necessary for abduction. This is a strong claim and it becomes a powerful argument. But whether or not one accepts that argument, it seems that for it to be reasonable to assume that a hypothesis is the best explanation, it must be assumed that being the best explanation is some indication of being true. Indeed, while noting that abduction is fallible, Douven also notes that

> [abduction] can still be reliable in that it mostly leads to a true conclusion whenever the premises are true. An obvious necessary condition for [abduction] to be reliable in this sense is that, mostly, when it is true that H best explains E, and E is true, then H is true as well. (Douven, 2011, #2)

Hence, an underlying truth is necessary for abductive reasoning to be reasonable. Moreover, a realist notion of such truth seems to provide a good reason for assuming that the goodness of an explanation indeed gives us reason to believe in it; it can be assumed that its explanatory force is a sign of truth-trackingness (cf. Psillos, 1999).

There is, unfortunately, a tendency to use the term "abduction" (in Swedish: "abduktion") with a somewhat different meaning within the Swedish context, and hence a further explanation is needed. In several books on method and methodology, and accordingly in several dissertations that I have come across, abduction is defined as the process of using both inductive and deductive reasoning.[105] First, I find it hard to believe that there are any studies that do not include any elements of deductive reasoning (implicitly, at least).[106] So, then, every study that involved any inductive reasoning (and, despite the problematic nature of inductive reasoning, both scientific and everyday thinking utilise inductive reasoning frequently (Vickers, 2014)), would be an abductive study. Hence, almost every study would be abductive.[107] Secondly, I do not know where this terminology would come from. As I understand Peirce, and what I take to be trustworthy experts on Peirce's thinking, abduction clearly is something else than this mix of induction and deduction. In fact, Peirce characterises abductive inferences as the non-deductive inferences that are not inductive

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[105] See for example Patel and Davidson (2003). Moreover, deduction is oftentimes incorrectly defined as going from a general claim to a specific one (see e.g. Patel & Davidson, 2003; Stensmo, 2007), but this definition is both too wide and too narrow. While *some* moves from a more general to a more specific claim are indeed examples of deductive reasoning (but not all of them), there is also deductive reasoning that does not move from general to specific, such as the following example: I have a penny in my drawer, therefore I have a penny or a dice in my drawer.

[106] Aristotle has already claimed that some basic forms of deductive reasoning, such as the law of non-contradiction, are necessary for human thinking, let alone science, in that no argumentation is possible without them (Gottlieb, 2013; Horn, 2014), and hence, no studies can be carried out without some deductive reasoning, by Aristotle's account.

[107] And while one could argue that most studies (or every one of them) are in fact using abductive reasoning (as some have done, see e.g. McMullin (1992)) one would reasonably argue that this is the case for some other reason than both using inductive and deductive reasoning. It would be something more precise about how conclusions are drawn within them.

(Douven, 2011). While abductive reasoning could include elements of both inductive and deductive reasoning, it is, in the view of Peirce, something more refined than simply a mix of them both. Indeed, Harman (1965) considers induction to be a special case of abductive logic.

Some, for example Hanson (1958, 1960) hold that abductive reasoning (or, more precisely, what Peirce calls "retroductive reasoning") is particularly promising in the realm of scientific discovery, i.e. in the process of generating reasonable hypotheses – or more technically correct, as a way of justifying the proposal of a hypothesis (which would be before the testing of it can occur). Hanson also holds that the idea that there can be a logic of discovery, that the processes by which hypotheses are suggested, might follow a logical pattern, is suggested by both Peirce and Aristotle. This connects abductive reasoning very well with the conducting of explorative research. In short, retroductive reasoning can be explained as the following: some seemingly unexplainable, or astounding (or almost inconceivable), observations are made (or data are produced).[108] But while these observations seem astounding given our present body of theories and hypotheses, given a possible hypothesis H, the evidence would not be astounding at all; on the contrary, it would be expected given H. If this is the case, then we have reason to assert H as a hypothesis to elaborate further, and to test in future research. This kind of reasoning has been used on several occasions in this thesis, for example in suggesting certain hypotheses about the existence of value transmission and its influence on students' reasoning, based on findings about the students' reasoning, and in many cases of interpretation.

Moral dilemmas

As we have seen, it has been quite common in prior research to use moral dilemmas in the study of moral reasoning and other cases of empirical studies of morality. In this thesis, I have made use of an example that I explained to the participants, which involved a situation where one had to make a choice, and I asked them what choice they thought it was reasonable to make. (See "Methods" for more explanation of this example.) The case in question is similar to moral choice cases used in schools before, as we have seen in the background. In much of the previous research, examples have been used which the researchers themselves call "moral dilemmas." I do not consider it obvious that the case described to the students in this study was a dilemma.

Let us understand a dilemma to be a moral situation where it is impossible for the subject to act morally correctly. (Blackburn, 2008) For the purpose of the present study, it is not most suitable to use moral dilemmas, since doing so would have several problems. First, not all ethical theories consider there to actually exist moral dilemmas, for example prominent

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[108] This can be called an anomaly, speaking with Kuhn (1962).

versions of consequentialism (Tännsjö, 2008).[109] Therefore, if one deems a position to be a moral dilemma, it seems that it follows that those versions of consequentialism are wrong. Secondly, it is problematic from the perspective of the value foundation to consider the case to be a dilemma, since if the value foundation is indeed free from contradictions (whether or not it in fact is will be discussed below), there can be no dilemmas from its perspective. The third problem has to do with the interpretation of the results, in that if the situation was indeed a moral dilemma, then it would have been less remarkable if variations were found in the students' moral reasoning, since there was no one right thing to do, and it seems that (although it does not follow by necessity), that participants in the study would more likely reason differently than one another than had there been a correct answer. Due to these considerations, the situation presented to the students was modelled as not to be a dilemma, but rather a situation demanding ethical consideration, in which it was at least an open question whether a satisfactory answer could be given.

Since the situation is not considered to be a dilemma, the distinction between serious and everyday dilemmas cannot be directly used. But a modified version of this distinction can be used, and then it can be said that it is a serious situation, not an everyday one. But nonetheless, it is not a science fiction one. The case is a rather typical situation, highlighting a kind of choice that many people have to make. This kind of technological choice is made regularly, and ought to be made regularly, both by people working with technology such as engineers, designers and ethics experts (cf. Albrechtslund, 2006; Duthie & Bond, 2011; Morrow, 2014; Smith, Gardoni & Murphy, 2014; Unger, 1994), by consumers of technological products (cf. Albrechtslund, 2006; Lii & Lee, 2012), and by citizens in society in regard to policies, laws and public decisions (cf. Degeling, Carter & Rychetnik, 2015; Godman & Hansson, 2009; Jebari & Hansson, 2013; Kingston, 2013; Swedish National Agency for Education, 2011a), and maybe all of us collectively as a society and a world (cf. Ferretti, 2010; Gardiner, 2004; Sharma, Lomash & Bawa, 2015). Answering the question posed in the interviews and deciding how to handle the case can be seen as a form of technology assessment (cf. Hofmann, 2008; Rosén & Werkö, 2014). The situation is thus one that concerns all of us in a democratic society sometimes, whether or not we actually realise it. It is therefore reasonably something that school should be concerned with, in helping the students to develop strategies for handling such decision situations regarding technology, as we have seen above.

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[109] It should be noted that there are several rivalling ideas of what a moral dilemma is. For example, Blackburn gives the following example in his well known *Oxford Dictionary of Philosophy*: "dilemmas exist such as that where a mother has to decide which of two children to sacrifice" (Blackburn, 2008, p. 240). If this is indeed classified as a dilemma, then there seem to exist dilemmas for utilitarianism as well, since the dilemma in question seems not to involve any clash of moral principles, only that whatever the mother does will be wrong. But Blackburn also points out that utilitarianism usually is considered not to give rise to dilemmas, and it has been contested whether or not this speaks in favour of utilitarianism.

RESULTS

In this section, I will present the results of this thesis. First, the three above presented approaches to ethics in school (Gardelli, 2011; Gardelli et al., 2014) are used as a data processing tool in order to understand the role given to ethics in the Swedish national curriculum, in particular in the syllabus for the subject of Technology. It is found that each of the three approaches occurs more or less throughout the curriculum, although some are given a stronger role in certain parts of the curriculum. Value transmission and inquiry ethics are the two approaches that are most visible in the general section. In the syllabi, on the other hand, inquiry ethics and descriptive ethics are most visible, while value transmission is rarely referred to.

Second, students' moral reasoning is studied, in three parts. Interviews have been used to produce data. First, in the case of the students' reasoning about technology choices, the students reasoned in accordance with several classical normative theories, including consequentialism, rights and duty based ethics and virtue ethics. Second, students' reasoning about online behaviour is presented. Many of the students defended very restrictive views on disclosing personal information online. Many of the students also claimed that adults defended these same restrictive views on sharing personal information online. Although the students defended the view that one ought to be very restrictive with posting information online, several of them also defended what can be seen as "private morals", moral relativism or a strong form of moral freedom, in that it is morally permissible to post however much one wants about oneself online – at least as long as this does not hurt other people. Third, varieties in students' moral reasoning that can be implicitly found in these first two sections will be explicitly presented and sorted into six different forms, in and between two dimensions of moral reasoning. It is thereby found that students' moral reasoning varies in several previously not acknowledged ways.

Ethics in the curriculum

In this section, I will present results describing the ways in which ethics is presented in the curriculum, the syllabi and the syllabus for Technology in particular.[110] The role ethics is given in the syllabus for Technology is compared to the role it is given in the other syllabi, and to the general parts of the curriculum as well. Moreover, the writings in the general section together with those in the syllabus for Technology are what jointly give instructions to teachers about how to treat ethics in technology education. And an understanding of the Technology syllabus is furthered by interpretive comparison with the role ethics is given in the rest of the syllabi.

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[110] Kåreklint (2007) gives a short description of how often in, and in what parts of, the curriculum for the Technology programme in the Swedish upper secondary school, which might be of interest for the reader, although he does not discuss or problematise different approaches to ethics, but only ethics as such.

References to the curriculum or the syllabi will, in this section, be done by simply giving a page number within a parenthesis, excluding the text: "Swedish National Agency for Education, 2011a," since they are by far the most common references in the text. Hence, a reference to the fourth page of the curriculum will be written simply as "(p. 4)" (but without the quotation marks).

Throughout this section, the theoretical model based on the distinction between the three approaches to ethics in school presented in the theoretical background will be used extensively, in analysing the different references to ethics in school in the curriculum, thereby furthering the understanding of the role of ethics in the national curriculum for the Swedish compulsory school.

Ethics in the general sections of the curriculum

Here, I will present the part of these results concerned with the role that ethics is given in the general sections of the curriculum. The Swedish Education Act states that teaching is a "goal oriented process that under the leadership of teachers or pre-school teachers is aimed at development and learning through retrieval and development of knowledge and values" (2010:800, chapter 1 section 4, my informal translation) and that education is "the activity within which teaching that stems from predetermined goals takes place" (2010:800, chapter 1 section 3, my informal translation). It should also be noted that only the inquiry ethics and value transmission approaches can be said to be able to meet the part of the definition which states "retrieval and development of values." Descriptive ethics is not concerned with that, but rather retrieval and development of knowledge about values. Hence, it seems that at least the value transmission approach or the inquiry ethics approach to ethics must be included in school, according to the act thus understood.

The Swedish Education Act furthermore states that

> [t]he education within the school system has the aim that children and students should obtain and develop knowledge and values. It shall promote all children's and students' development and learning, together with a lifelong desire to learn. The education should also mediate and consolidate respect for the human rights and the fundamental democratic values upon which the Swedish society rests. (The Swedish Education Act 2010:800 chapter 1 section 4, my informal translation)

Once again, ethics has a prominent role, being directly mentioned in the act. This formulation also seems to refer to the value transmission approach and the inquiry ethics approach, the strongest here seems at first to be value transmission, since "mediation" of values is referred to. But if it is argued that such fundamental democratic values include freedom of speech and the right not to be forced to uphold certain values, that it includes the open word and the public debate (cf. Englund, 2000), then it can be argued that it is best met by an inquiry ethics approach. And it can also be argued that this approach is best suited to raise citizens with sustainable and entrenched democratic values (cf. Gardelli et al., 2014).

The Swedish Education Act furthermore states the following about the curriculum: "The curriculum should state the fundamental values and commission of the education. It shall also

state the goals and guiding principles of the education" (2010:800, chapter 1 section 11, my informal translation).

In the curriculum, within the fundamental values ('värdegrunden') it is stated that "Each and everyone working in the school should also encourage respect for the intrinsic value of each person and the environment we all share" (p. 9). It furthermore states that "The inviolability of human life, individual freedom and integrity, the equal value of all people, equality between women and men, and solidarity with the weak and vulnerable are the values that the school should represent and impart" (p. 9). Since this quote so clearly states that certain values should be imparted, it is a rather clear reference to value transmission. Indeed, the section continues with the following statement: "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" (p. 9). Here, the term "fostering" is used in accordance with the value transmission approach. There are also several other formulations as well that I interpret as calling for value transmission in school.

One passage under this heading states that school should "encourage all pupils to discover their own uniqueness as individuals and thereby be able to participate in the life of society by giving of their best in responsible freedom" (p. 9). This seems to require an inquiry ethics approach, amongst many other things not having to do with ethics at all, due to the fact that to discover one's own uniqueness as an individual and to participate in society in "responsible freedom" seems to, at the very least, demand some abilities to formulate own opinions, reason about values and talk about such matters with others. This interpretation is supported by the text found in the section "Responsibility and influence of pupils" (p. 17) of the curriculum. And if school is to contribute to this, it reasonably has to do this by contributing to the development of such skills.

Under the heading "Understanding and compassion for others," the text begins by stating that "[t]he school should promote understanding of other people and the ability to empathise" (p. 9). Interpreting this statement is not easy. At first glance the intitial part of the sentence seems to be a reference to descriptive ethics. But, doubts can be raised as to whether descriptive ethics is concerned with actually understanding others, or merely learning hard facts about other people's values and opinions. Some have argued that understanding others is one of the main goals of the inquiry ethics approach to ethics, and that such an ability to understand others is developed in open dialogue with others (cf. Fisher, 2007). The Swedish National Agency for Education (2000, p. 13) states that "[b]y comparing and contrasting different perspectives with each other in a reciprocal dialogue, […] children's and young peoples' ability to empathise and make themselves acquainted with another person's situation can grow" (my translation). If one is convinced that understanding others is something that is not learned through descriptive ethics, then the whole sentence is a reference to the inquiry ethics approach. But, if one is not convinced of that, the best interpretation seems to be that the first subordinate clause is most strongly a reference to descriptive ethics. The second clause is a reference to the inquiry ethics approach, since it states that an ability should be promoted. But it is a rather interesting ability; it differs from many of the abilities otherwise referred to.

Xenophobia and intolerance must, according to the curriculum, "be confronted with knowledge, open discussion and active measures" (p. 9). The knowledge referred to here is, reasonably, to a large extent non-ethical, but reasonably also to some extent ethical. The ethical knowledge here referred to could be such knowledge as knowledge about what values and norms are actually upheld by a majority of people in a certain country, or of a certain faith. Hence, this would be a reference to descriptive ethics. But, the open discussion is not a typical feature of descriptive ethics. Discussion about ethics and moral matters is, instead, a typical feature of inquiry ethics approaches to ethics. What "active measures" should be taken to mean is unclear. It seems it could mean value transmission – actively letting the students know what they should think about the matters. But it could reasonably be other things as well. Hence, this short formulation could be taken to refer to all of the different approaches here discussed. There is also a long formulation about internationalisation, following directly after the above quoted sentence, which reads:

> The internationalisation of Swedish society and increasing cross-border mobility place high demands on the ability of people to live with and appreciate the values inherent in cultural diversity. Awareness of one's own cultural origins and sharing in a common cultural heritage provides a secure identity which it is important to develop, together with the ability to understand and empathise with the values and conditions of others. (p. 9)

This formulation is hard to interpret in the light of other things stated in the curriculum. What if some of these values upheld by others are xenophobia and intolerance? Then they should both be "lived with and appreciated" and actively confronted. How should this be accomplished? Regardless of these problems, it seems that this is a case of descriptive ethics, but also the other two approaches. Empathising with others is, as said earlier, an ability included in the scope of the inquiry ethics approach, and there seems to be a case of value transmission involved as well, since it is stated that the children should learn to live with and appreciate certain values.

Under the next heading, "Objectivity and open approaches," it is stated that "The school should be open to different ideas and encourage their expression. It should emphasise the importance of forming personal standpoints and provide opportunities for doing this" (p. 10). If this also regards ethics, which it reasonably does, then it clearly states that an inquiry ethics approach to ethics is necessary in school.

Even more interestingly, the curriculum continues by stating that "All parents should be able to send their children to school, fully confident that their children will not be prejudiced in favour of any particular view" (p. 10). The first interpretation of this would clearly be that it is a straightforward denial of the value transmission approach. It seems contradictory to claim this, and simultaneously claim that certain values should be imparted, while certain others are not. But it cannot be that it should be interpreted in this intuitive way, since there are plenty of rather clear references to value transmission throughout the curriculum. Amongst these is the sentence that directly follows the one in question: "All who work in the school should uphold the fundamental values that are set out in the Education Act and in this curriculum, and clearly dissociate themselves from anything that conflicts with these values" (p. 10). Another formulation of this kind is the following, found under the "Task of

the school" heading: "The school has the task of imparting fundamental values […] in order to prepare [the students] to live and work in society" (p. 11). How this is to be resolved is not obvious. Maybe the first quote presented in this paragraph is just a statement of the importance of taking a critical standpoint, i.e. the importance of the inquiry ethics approach, since every view then could be contested. Such an interpretation would at least reduce the tensions in the text.

Under the heading "Rights and obligations," it is stated that: "It is not in itself sufficient that teaching only imparts knowledge about fundamental democratic values. Democratic working forms should also be applied in practice and prepare pupils for active participation in the life of society" (p. 10). The first of these sentences states that while not sufficient, it is at least one part of the school's mission to impart fundamental democratic values. This could be taken to be a reference to the value transmission approach. But it also states that there should be something more than value transmission. One important part of democratic working forms, as stated by e.g. the Swedish National Agency for Education (2000), is an open discussion with the opportunity to debate certain claims and possible choices (cf. Englund, 2000). Hence, this is a reference to an inquiry ethics approach to ethics.

Finally, in the first main part of the curriculum, some perspectives that should permeate all education, such as a historical perspective, an environmental perspective and an ethical perspective, are presented: "An ethical perspective is of importance for many of the issues that are taken up in the school. This perspective should permeate schooling in order to provide a foundation and support pupils in developing their ability to form personal standpoints" (p. 12). When the curriculum states the general ethical perspective, it is the inquiry ethics approach it refers to.

The second main part of the curriculum is the "Overall goals and guidelines." The general description is three lines long, and starts: "The overall goals set out the norms and values, as well as the knowledge that all pupils should have acquired by the time they leave the compulsory school" (p. 14). This is a strong reference to the importance of ethics. Most reasonably, a reference to value transmission. Under the first sub-heading, "Norms and values," the text states that "The school should actively and consciously influence and stimulate pupils into embracing the common values of our society, and their expression in practical daily action" (p. 14). This is, again, a strong reference to value transmission.

Under the sub-heading "Norms and values" there are furthermore several goals, i.e. specific values which should be taught to the children and guidelines for those who work in school in general, and teachers in particular. These are, of course, first and foremost references to value transmission. But there are also duties that the teachers should abide by. It is thus stated that teachers should "clarify and discuss with the pupils the basic values of Swedish society and their consequences in terms of individual actions" (p. 14), "openly communicate and discuss different values, views and problems," (p. 14) and "together with the pupils develop rules for working and participating in their own group" (p. 15). These are all strong references to the inquiry ethics approach to ethics, the first one also being a reference to descriptive ethics. The general picture in this section about the guidelines for teachers and the teacher's role is that the teacher should not mediate pre-determined values, but should rather give the opportunity for the students to develop abilities of understanding, reflecting and

taking a standpoint in regard to certain values. The guidelines for everybody working in school, however, mostly refer to the value transmission approach.

To conclude, while all three approaches are visible in the general section of the curriculum, descriptive ethics is quite clearly not as strongly present as the other two approaches. Instead, the value transmission and inquiry approaches are most clearly prescribed in the general section. Value transmission dominates the value foundation, while inquiry ethics is more strongly prescribed in the other parts of the general section.

Ethics in the syllabi other than the technology syllabus

Let us now turn our attention to the role that ethics is given in the syllabi, what role it is given in each of the subjects in school. First, I will investigate its role in all the syllabi other than the Technology syllabus, and thereafter more thoroughly study the role of ethics in the Technology subject, using the study of the other syllabi as a frame of reference and comparison.

In this subsection, I will discuss the role ethics is given in subjects other than Technology, by the texts of the respective syllabi. This will be done in two different parts. First, I will describe the role of ethics in the subjects where the word "ethics" is explicitly used, and secondly, I will discuss those subjects that do not explicitly use the word "ethics," and see what role ethics should play, if any, according to the curriculum. It should once again be noticed that ethics should play a role in general in school, in all subjects, according to the curriculum, (and therefore should have some role in all subjects (cf. Alerby & Bergmark, 2014)) but it will here be studied if it is given any particular further roles.

In the syllabi, the terms "ethics" (in Swedish: "etik") or "ethical" ("etisk" or "etiska") are explicitly used in the following syllabi: Art, English, Biology, Physics, Chemistry, Geography, Religion, Civics, Swedish, Swedish as a second language, and Technology. (As a parenthesis it can be noted that the term "moral" is used in the syllabi for Religion, Swedish and Swedish as a second language, sometimes in formulations such as "ethical and moral"). These are 11 out of the 20 subjects. The nine where ethics is not explicitly mentioned are Home and consumer studies, Physical education and health, Mathematics, Modern languages, Mother tongue tuition, Music, History, Crafts, and Sign language for the hearing.

Not all references are made by explicit use of denoting terms. Ethics can be discussed without using the *term* "ethics." For example, one can denote ethics by such phrases as "Nature has a value in itself," which ascribes moral value to nature, or "It is not acceptable to harass classmates on the Internet," which expresses the ethical proposition that it is morally wrong to harass one's peers on the Internet, or "Peter should learn to understand other people's values and opinions," a sentence that states that Peter ought to learn to understand others' opinions and moral valuations. Hence, finding possible implicit references to ethics in the syllabi is necessary to further answer the question of what role ethics plays in the different subjects of school according to the Swedish curriculum, and in what subjects it plays what role(s).

Table 2 below, shows which subject has explicit references to ethics, which only has implicit references, and which has no reference at all.

Table 2. Explicit and implicit references to ethics.

Subject	Explicit reference	Only implicit reference
Art	X	
English	X	
Home and consumer studies		X
Physical education and health		X
Mathematics		
Modern languages		X
Mother tongue tuition		X
Music		
Biology	X	
Physics	X	
Chemistry	X	
Geography	X	
History		X
Religion	X	
Civics	X	
Crafts		X
Swedish	X	
Swedish as a second language	X	
Sign language for the hearing		X
Technology	X	

Syllabi with explicit references to ethics

In the majority of the syllabi of the national curriculum in Sweden, ethics is explicitly mentioned. In this section, I will describe some of the main characteristics of the explicit references found in these syllabi. Although there are explicit references, the number of implicit references is many times larger in these syllabi. The implicit references found in these syllabi will not be discussed here.

The first subject of the national curriculum is Art. In the core contents of the subject, it is stated under the heading "Producing pictures" that among the core contents are "[r]ights and obligations, ethics and values regarding use of pictures, and also freedom of speech and integrity in the media and other contexts" (p. 24). Interpreting this is not easy. Let us start from the end, with the last subordinate clause. If it would simply have said "freedom of speech and integrity," then it seems it would stand in between the value transmission and the inquiry ethics approaches. What would close the deal in that case would be the formulations in the general parts of the curriculum that state that "[e]ducation should impart and establish respect for human rights and the fundamental democratic values on which the Swedish society is based" (p. 9), which speaks in favour of a value transmission interpretation of the quote at hand, since freedom of speech is considered one of the most important fundamental values in the Swedish democracy. It is thus stated in the Constitution: "Everyone shall be guaranteed the following rights and freedoms in his or her relations with the public institutions: freedom of expression: that is, the freedom to communicate information and express thoughts, opinions and sentiments, whether orally, pictorially, in writing, or in any other way" (The Instrument of Government, chapter 2, art. 1). But the fact that the quote specifically refers to "the media and other contexts" makes things seem different. It might shift focus to questions about how the media landscape *in fact* is. If so, then this is a reference to descriptive ethics. But if it is also a question of *discussing* freedom of speech, then it is also a question of the inquiry ethics approach. And if it is a question of *making sure* that the students come to cherish freedom of speech in the media, then it is a reference to value transmission as well. It seems unfeasible to find one interpretation that stands out as the most reasonable one.

The middle subordinate clause ("ethics and values regarding use of pictures") is also complicated. First, it seems like a reference to descriptive ethics. But the fact that it states that *both* ethics and values should be considered makes me wonder. The term "values" could be taken to refer to people's opinions and valuations, while the term ethics (when used in a situation such as this, as something else than "values"), is often taken to refer to the study of values, moral philosophy. And since both of them are explicitly stated, this interpretation seems reasonable. In that case, the middle clause would be about both the descriptive ethics *and* the inquiry ethics approach.

The first clause ("Rights and obligations") is again difficult to interpret, even though (or maybe just because) it only has three words. Should the students learn about what rights and obligations people consider artists to have? Or should they be made to consider artists to have a certain set of rights and obligations? Or should they think about, discuss and form opinions themselves about what rights and obligations artists have? If the formulation would simply have been about rights, a descriptive ethics approach would have seemed a stronger interpretation than it now does. When speaking about rights, many people tend to refer to either the Universal Declaration of Human Rights, declared by the United Nations (1948), or some set of legal rights given by the society in which the speaker lives. And then, the meaning would have been that one should learn about what the declaration says, which would then be descriptive ethics. But since the formulation is about both rights and obligations, that interpretation is not as reasonable. To sum up, it is very hard to tell how this should be interpreted. It might be a mix of many approaches, and it might be only one of them. But I

cannot find one interpretation that seems sufficiently stronger than the other to say that this one ought to be chosen.

In the subject of English, the core content includes: "Interests, daily situations, activities, sequences of events, relations and ethical questions" (p. 34) among the content of communication for years 7-9. At first glance, this looks like a reference to descriptive ethics. But, the bullet point after this one reads: "views, experiences, feelings and future plans." What would have constituted descriptive ethics in the first seems to a large extent to be covered by the latter, and hence the better interpretation is that the term ethics here refers to the inquiry ethics approach: the students should be discussing their values and moral outlooks. Hence, there are references to both the descriptive ethics and the inquiry ethics approaches in this syllabus, the inquiry ethics approach being the one referred to by the explicit reference.

In Biology, one aim of the subject is that students should be given "opportunities to use and develop knowledge and tools for expressing their own arguments and examining those of others in contexts where knowledge of biology is of importance. As a result, students should be given the preconditions to manage practical, ethical and aesthetic situations involving health, use of natural resources and ecological sustainability" (p. 105). This is one rather clear case, where only the interpretation of a reference to the inquiry ethics approach can be justified. The mentioning of the development of tools for expressing one's own arguments and examining those of others is a very strong argument for that interpretation. That is exactly one of the main activities within a typical inquiry ethics approach.

The following is a core content of Biology: "Genetic engineering, opportunities, risks and ethical questions arising from its application" (p. 108). This should be interpreted as the inquiry ethics approach, it seems, since it refers to ethical questions. This approach oftentimes consists of asking questions about moral situations, and trying to scrutinise arguments for different positions regarding the questions. There are implicit references to what seems to be a value transmission approach to ethics found in the core contents as well.

In Physics, an aim very similar to that in Biology is found (p. 120). As in the case of Biology, the most fitting interpretation is that this is a reference to the inquiry ethics approach. This is strengthened by the fact that it is further said that "[t]eaching in physics should essentially give pupils the opportunities to develop their ability to use knowledge of physics to examine information, communicate and take a view on questions concerning energy, technology, the environment and society" (p. 120). Taking a view of one's own is, as said before, one of the main activities and aims of the inquiry ethics approach. This also strengthens the above interpretation about the formulation of the aim in Biology. Analogous passages can be found in the subject of Chemistry as well, which I interpret likewise, as references to the inquiry ethics approach.

In the subject of Geography, an aim is that teaching should give "pupils the opportunities to develop their ability to […] assess solutions to different environmental and development issues based on considerations concerning ethics and sustainable development" (pp. 150–151). Some things are of particular interest here. The first is that it is stated that students should develop their ability to assess. This speaks in favour of an interpretation leaning towards the inquiry ethics approach to ethics. The second is that there is a connection to sustainable development. In many of the other statements involving sustainable development, the most

obvious interpretation of ethics has been the inquiry ethics approach. It does not seem like the point in question is that sustainable development should be discussed or assessed. This speaks against an inquiry ethics interpretation. It seems that it is supposed that sustainable development has some specific defined values in it, in this case. But does this speak in favour of value transmission? No, it seems not, since the point in question here seems to be to learn to assess something *based on* the values of sustainable development. And this is still a question of reasoning and thinking skills, even though the values used might be taken to be fixed. But, on the other hand, the point of this might also be taken to be to make sure the students come to uphold those values. So maybe it is a question of a prescription of both the value transmission and the inquiry ethics approaches. But the strongest seems to be the inquiry ethics approach, and this gains support from related formulations appearing in the knowledge requirement sections that further indicate a reference to the inquiry ethics approach, by usage of such formulations as "informed proposals on ethical-environmental choices and prioritisations" (pp. 155-156). The emphasis of "informed proposals" and "choices and prioritisations" all signal that reasoning and thinking skills are in focus.

In the subject of Religion, several rather straightforward explicit references to the inquiry ethics approach to ethics can be found, such as "[t]eaching should encourage pupils to reflect over various issues concerning life, their identity and their ethical attitudes" (p. 176) and "Pupils should, in addition, be equipped to analyse and determine their standpoint in ethical and moral questions" (p. 176). Moreover, teaching in Religion "[s]hould essentially give pupils the opportunities to develop their ability to […] reason and discuss moral issues and values based on ethical concepts and models" (p. 176). This is a very clear reference to the inquiry ethics approach to ethics in school. But, since it is within the subject of Religion, it seems that it is also stated that there is an element of descriptive ethics involved in it. I cannot explicitly say what formulations make me interpret it thus, it is just a feeling of the syllabus in its whole. Moreover, ethics has its own sub-heading in the core contents of Religion. Among the core contents are theories from normative ethics such as consequentialism, virtue ethics and deontological ethics, something that is unique to this subject. This also seems as a reference to both descriptive ethics (learning that those theories exist) and inquiry ethics (in reasoning about them).

In the Civics syllabus, "ethical and democratic dilemmas" (p. 193) are referred to amongst the core contents. This is unique to this syllabus. Since the word "dilemmas" is used, I take it that the point is to reflect upon these, or reason about them, and hence interpret it as that the inquiry ethics approach is prescribed.

In the subject of Swedish, the core contents include "[e]thical and moral aspects of the use of language, freedom of speech and privacy in different media and contexts" (p. 215). As stated before, these kinds of references are very hard to interpret. This only adds to the difficulties already shown above. The same formulation can be found in the syllabus for Swedish as a second language.

In summary, it was found that references were given both to descriptive ethics and to the inquiry ethics approach to ethics, but not to value transmission, but the explicit references were all references to the inquiry ethics approach.

Table 3 below shows the explicit references found in these syllabi, and what kind of ethics they refer to according to my interpretations of the texts. A question mark means that there was a possible explicit reference to this approach in the syllabus of this subject, but that it could not be decided which interpretation was the most fitting, and not whether they were referred to at all.

Table 3. Explicit references to ethics in school, by approach.

Subject	Descriptive ethics	Value transmission	Inquiry ethics
Art	?	?	?
English			X
Biology			X
Physics			X
Chemistry			X
Geography		X	X
Religion	X		X
Civics			X
Swedish	?	?	?
Swedish as a second language	?	?	?
Technology	X		X

Syllabi that lack explicit references to ethics

As briefly mentioned above, there are nine syllabi in which the word "ethics" is not used. These are Home and consumer studies, Physical education and health, Mathematics, Modern languages, Mother tongue tuition, Music, History, Crafts, and Sign language for the hearing. Does this fact mean that ethics has no role to play in the corresponding subjects, according to the curriculum? In some cases yes, and in other cases no. I will briefly discuss each subject below.

In Home and consumer studies it is stated as an aim of the subject that students "develop their ability to […] assess choices and actions in the home and as a consumer, and from the perspective of sustainable development" (p. 43). There are different types of assessments, not each necessarily ethical, but an assessment of choices and actions is at least partly an ethical assessment, especially since the statement says both "as a consumer" and "from the perspective of sustainable development." For example, assessing choices as a consumer is, amongst other things, to examine the moral aspects of the goods one is purchasing (e.g. whether the goods are produced with child labour or not) and weighing these factors into one's decisions, and assessing actions and choices from the perspective of sustainable development certainly has an

ethical dimension, to say the least (Buchdahl & Raper, 1998; Manion, 2002). This is best understood as an expression of the inquiry ethics approach, since it concerns abilities relating to the making and assessment of moral judgements and actions and choices – but reasonably also a descriptive ethics approach, since the values of sustainable development must be recognised.

In Physical education and health, there are some statements which at first glance seem like they might have a moral aspect to them. One of the aims of the subject is that "[p]upils through teaching should also develop knowledge of concepts which describe physical activities and be given the opportunities to determine their standpoints on issues related to sports, health and lifestyle. Through teaching, pupils should be given the opportunity to develop their interpersonal skills and respect for others" (p. 50). The part about the students determining their standpoints, has at least partly a moral aspect, it seems, since the things upon which to have a standpoint are of such a type that the standpoint would include moral valuations, e.g. such that it is good to be healthy, or that it is praiseworthy to be a successful athlete, or that achievements in sports are not part of the meaning of a good life, and so on. This would then be a reference to the inquiry ethics approach to ethics (if the point of the exercise is to exercise the ability to determine their own standpoints) or to value transmission (if the point is that they thereby come to think what the educational system wants them to think about sports, health and lifestyle). Since value transmission has such a strong position in the rest of the syllabus, the latter interpretation might be the strongest here. If the "interpersonal skills" are ethical skills, obviously this would have been a reference to the inquiry ethics approach. But I think that they are not, but rather that they should be seen as communicative skills in general, and hence, that is no reference to ethics. A rather direct reference to ethics is that the students, through the subject, should be given the opportunity to develop their respect for others. Respect for others is a typical moral value upheld by educational systems, and this clearly seems to be a case of value transmission. There are more cases of the value transmission approach as well in this syllabus. One example is that one "core content" is "[f]actors concerning safety and consideration to others in connection with games, sports and time spent outdoors" (p. 51). The consideration to others and the environment (in the English version it seems as if the consideration is only to be directed towards "the other," but the Swedish text at least gives an opportunity to do the interpretation, and I believe it is indeed the more reasonable one, that the consideration should be towards nature as well) is something that is a core content, and the best interpretation of this is that it is supposed that one should learn to have consideration for others and the environment. Hence it is a case of value transmission.

In Mathematics, there are formulations about the ability to "evaluate" and "assess," which one could think were moral concepts – but these are cases of non-moral evaluation and assessment. The one formulation which might be said to have moral content is an aim that "pupils should also be given opportunities to reflect over the importance of mathematics, its use and limitations in daily life, in other school subjects and in historical processes, and as a result be able to see the context and relevance of mathematics" (p. 59), since such value laden terms as "importance" and "relevance" are used, but in this case, this is a very weak connection to ethics, if one at all. If it is, it could either be a reference to inquiry ethics or

value transmission. I consider it more reasonable to treat it as not being a reference to ethics than the opposite.

In the case of Modern languages, ethics seems to have a comparably weak role to play, according to the curriculum. There are two different formulations that relate to ethics. One is that in the aims of the subject it is stated that the students should be given "the opportunities to develop their ability to reflect over living conditions, social and cultural phenomena in different contexts and parts of the world" (p. 73). This might in part come down to the inquiry ethics approach, to the extent that values, norms or other moral matters are part of those living conditions and social and cultural phenomena denoted by the syllabus. The other reference to ethics is in the core content, which in several of the different years in school should contain both "views"[111] and "daily life and ways of living" (p. 74). Among the views of interest could be views on moral matters, and different ways of living might be related to different values and moral standpoints. If ethics is related to in these ways, it seems to be descriptive ethics that one would be concerned with.

In the Mother tongue tuition, ethics seems to be ascribed a stronger position. The second and third sentences of the syllabus are: "Through language people develop their identity, express their feelings and thoughts, and understand how others feel and think. Rich and varied language is important in being able to understand and function in a society where different cultures, outlooks on life, generations and language all interact" (p. 83). First, an important part of one's identity is one's values and views on moral matters. Second, the outlooks on life here mentioned also reasonably include views on what is the meaning of life and other moral matters. Hence, ethics is of importance here. What kind of ethics is this an expression of? It is difficult to determine, but at least it involves descriptive ethics, and not value transmission. With reference to what is stated in other parts of the curriculum regarding understanding of others, the interpretation that it is also a reference to the inquiry ethics approach seems reasonable. Even more so due to the fact that this statement concerns development of character, not only description. And also the fact that it concerns functioning in society. In the general sections of the curriculum, thinking skills are tightly connected to this kind of functioning in contexts like those described in the quoted passage. Hence, there are many pieces of information that make the interpretation reasonable.

In the subject of Music, I cannot find any formulation in the syllabus according to which ethics has a role. Hence, I take it that ethics plays no special role in Music, other than those that follow from what is generally prescribed for all of school.

History is one of the perspectives that should permeate all education (as is ethics), but History is also a subject of its own. In the aim of the subject, it is stated that history should "help pupils to develop their historical knowledge of similarities and differences in people's living conditions and values" (p. 163). Clearly, this is a reference to descriptive ethics, since it regards what values people actually have had, and also since it puts emphasis on "knowledge," which I here understand as "factual knowledge" (i.e. propositional knowledge about empirical matters). It is also said that teaching should "contribute to pupils' developing an understanding that people in every age must be assessed on the basis of the conditions and values existing at that time" (p. 163). This is an interesting statement. What kind of assessment

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[111] "Åsikter."

is intended? It seems that part of the assessment could be of the kind "Was it really acceptable that Brutus joined in the killing of Caesar?" or "Should the Romans have refrained from destroying Carthage?", that is, assessment of the moral status of actions and decisions of the historical persons. But what kind of ethical perspective is this a reference to? It seems it is either value transmission or the inquiry ethics approach. This depends upon whether it shall be seen as a value judgement that historical persons be assessed on the basis of their time of living, or the development of some kind of ability or skill related to historical assessment. But it is questionable if it is a value statement at all. It would be an atypical value in the curricula, if a value at all.[112] Based on this, and on other statements in the texts, the best interpretation seems to be that it is a reference to the inquiry ethics approach. There is also a formulation about historical narratives, saying that the teaching should "contribute to pupils developing their understanding of how historical narratives are used in society and in everyday life. By this means, pupils should develop different perspectives of their own identities, values and beliefs, and those of others" (p. 163). This seems to be a reference to the inquiry ethics approach, since the aim seems to be to learn the ability to develop different perspectives of their own, and others', values. But it also seems to be a reference to descriptive ethics.

In the core contents of History for the earlier years are "[l]ife issues of importance for pupils, such as good and evil, right and wrong, friendship, gender roles, gender equality and relationships" (p. 164). Depending on how to treat these themes, different approaches might be referred to. But the most natural assumption seems to be that the students should get to reason about good and evil, and relate this to historical events and characters, assess whether or not these characters have been good or evil, and so on. But the reasons for this might be taken to be twofold: first, they should practice their reasoning and their assessment abilities. But secondly, it is reasonable to believe that this is also prescribed in order for the students to come to deem certain actions as evil and some as good. Hence, it seems to be a reference to the inquiry ethics approach and to the value transmission approach. There is also a bullet point stating that a core content is "Norms and rules in pupils' living environments, such as in school and sports contexts" (p. 164). This is best understood as a descriptive ethics reference, since what is intended is to learn what norms and rules are actually present. There is a short step from there to the position that these norms should be accepted and these rules followed, which would be a case of value transmission, but while short, it indeed marks a difference between the approaches. In the next bullet point, this bridge is built: "[t]raffic rules and how to act safely in traffic" (p. 164). This seems to be a reference both to descriptive ethics, in learning what the traffic rules say, and to value transmission, in learning how to act safely in traffic. Also, "[b]asic human rights" (p. 165) is a core content, a reference to descriptive ethics and possibly also to value transmission, but the fact that it is stated in the History subject seems like a factor making it lean more towards the descriptive ethics approach. There are also several other references to descriptive ethics. And finally, in the grade requirements, there are references to descriptive ethics and inquiry ethics.

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[112] It seems that if it is a value, it is a second-order value, or procedural value (cf. Lipman), or something of that sort, but not a first-order, or substantive (cf. Lipman), value, which is the kind of value that the value transmission approach to ethics is concerned with. (cf. Gardelli et al., 2014)

In the Crafts syllabus, the formulation which I interpret as having an ethical aspect is a text about sustainable development: "Pupils should also be given opportunities to develop knowledge of the working environment and safety issues, and how to choose and handle materials in order to promote sustainable development" (p. 203). This might not be a reference to ethics at all, but if it is it seems to be to value transmission, since safety and sustainable thinking should be mediated to the students.

In the subject Sign language for the hearing, ethics has a similar role as it has in the subject of Modern languages. One formulation which relates to ethics is the following, stating that teaching in Sign language for the hearing should essentially give pupils opportunities to develop their ability to "reflect over living conditions, societal issues and cultural phenomena amongst the deaf and other users of sign language in different contexts and situations, nationally and internationally" (p. 245). This seems to be a reference to inquiry ethics, analogously as with the similar formulation in the subject of Modern languages. There are also, again in similarity with the syllabus for Modern languages, several references to "views and feelings" in the core contents, which seems like references to descriptive ethics.

Table 4 below shows the implicit references found in these syllabi, and what kind of ethics they refer to according to my interpretations of the texts.

Table 4. Implicit references to ethics in school, by approach.

Subject	Descriptive ethics	Value transmission	Inquiry ethics
Home and consumer studies	X		X
Physical education and health		X	
Mathematics			
Modern languages	X		X
Mother tongue tuition	X		X
Music			
History	X	X	X
Crafts		X	
Sign language for the hearing	X		X

Ethics in the Technology syllabus

Let us now move on the the role(s) ethics is given in the syllabus for the Technology subject in the Swedish compulsory school.

Sometimes I will say that something is a reference to one of the approaches (e.g. the descriptive ethics approach) when it in fact is a statement that some aim ought to be pursued which is also what the approach prescribes that one should pursue (e.g. that social facts about

ethics should be learnt), since this way of speaking is a simplification. Analogously, I will sometimes say that something is a reference to a certain perspective, when it is in fact a prescription that a certain thing should be done, which would be what a proponent of the perspective would typically prescribe in order to fulfil the aims of that perspective.

The first paragraph of the section describing the aims of the subject of Technology states that teaching should aim at helping the students develop such abilities that "they can orient themselves and act in a technologically intensive world" (p. 254). This can both be interpreted as a reference to value transmission and to the inquiry ethics approach. But which of these interpretations, if any, is the better? I have argued elsewhere that this kind of orientation to a large extent calls for a set of skills that are in many studies shown to be developed by a typical inquiry ethics approach to ethics (Gardelli et al., 2014). The technology landscape and the moral problems and decision situations that it presents to us, is ever changing. It is therefore problematic to find a given set of values that will be fitting throughout the period of time in which today's students will face these situations – not to mention the impact they will have on future generations' values. Due to these considerations, it seems reasonable to hold that this calls rather for generic skills and abilities related to dealing with moral issues than for pre-determined value sets. Hence, this aim seems best interpreted as referring to the inquiry ethics approach.

The third paragraph of the aims section begins: "Through teaching, pupils should be given the opportunity to develop their understanding of the importance of technology and its impact on people, society and the environment" (p. 254). It seems that this statement has several elements. The second half of it ("[the impact of technology] on people, society and the environment") has in itself several different implications. Part of this impact is, of course, not directly related to ethics, such as the fact that technological developments change how we live our lives, when and why we die, how science and society changes, etc. But part of the impact is reasonably an impact on our values, moral beliefs and moral choices. Changes in technology might cause us to value things differently, to choose other careers and prioritise other things in life. And dealing with these questions seems to be dealing with descriptive ethics, in understanding what attitudes people in fact have towards technology, and how technological advances change people's attitudes in general. Hence, a descriptive ethics approach is implied. But this is not all that is stated. The importance of technology cannot be fully understood in terms of what people *believe* the importance to be, or what they *think* is important or what they *in fact* value. The first half of the sentence ("pupils should be given the opportunity to develop their understanding of the importance of technology") thus refers to something else. Value transmission could be intended. Indeed, it is presupposed that technology is important. But is the intention of the formulation that this view that technology is important should be straightforwardly transmitted to the students? The formulation is too indirect, and it seems a bit far-fetched. A more reasonable and direct interpretation seems to be that the students should be given an opportunity to *reflect* upon the importance of technology. Developing understanding is not a typical activity within the value transmission approach. And the importance and impact of technology on the environment is indeed in part a question of what values should be said to be in place. It hence seems that the

best interpretation is that this is a reference to an inquiry ethics approach. Therefore, the statement in whole prescribes both inquiry ethics and descriptive ethics.

Even more importantly, the third paragraph carries on to refer explicitly to ethics, in the following passage: "[i]n addition, teaching should give pupils the preconditions to develop confidence in their own ability to assess technical solutions and relate these to questions concerning aesthetics, ethics, gender roles, the economy and sustainable development" (p. 254). The reference to these assessments in relation to ethics is definitely a case of referring to an inquiry ethics approach. One reason is that the expression "their own ability to assess" is used. A second is that the statement is about questions concerning ethics, a formulation which at least does not fit a value transmission approach. A third is later references, both explicit and implicit, as we shall see below.

The aims section ends with a couple of bullet points, all starting with the formulation "[t]eaching in technology should essentially give pupils the opportunities to develop their ability to" (p. 254) and then continuing with the specific bullet point. The first of these is to "identify and analyse technological solutions based on their appropriateness and function" (p. 254). We must here ask what kind of appropriateness is at stake here. It can be taken to be the mere intra-technological appropriateness – such as "this object fits better at this place, strictly technologically speaking." If so, then this statement seems to have nothing to do with ethics or morality. But if it is a broader kind of appropriateness that is at question, such as "this object works as intended, technically speaking, but would severely injure people using it, and hence it is inappropriate" then it is a question of a moral appropriateness. And to at least include the latter type of appropriateness seems to be the most reasonable interpretation. One reason for this is that it seems that the latter part of the sentence – "and function" – would otherwise be redundant. Hence, making charitable interpretations requires that the latter interpretation should be used. Then, this is a case of a reference to the inquiry ethics approach. Analysing the appropriateness of something is a typical pursuit within an inquiry ethics approach.

An even stronger reference to an inquiry ethics approach is the bullet point saying that the students should develop their abilities to "assess the consequences of different technological choices for the individual, society and the environment" (p. 254). This clearly[113] is a reference to having an inquiry ethics approach to ethics in school.

The last bullet point is interesting. It states that the students should develop their abilities to "analyse the driving forces of technological development and how technology has changed over time" (p. 255). This should, in turn, be related to the first piece of text in the aims section, which states that "The driving forces behind the evolution of technology have often been a desire to solve problems and meet human needs" (p. 254). Hence, it is a question of meeting human needs and solving problems. But then, it could be seen as a question of both descriptive ethics and inquiry ethics. The kind of analysis could both be taken to be a

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[113] This is strengthened by other formulations containing "consequences," which I have interpreted as references to the inquiry ethics approach. Although, one concern can be raised. Consequentialists could see this as a perfectly reasonable part of value transmission – according to them, the consequences of an action are what determines its moral status, and hence, learning to assess consequences could be part of what it means for them to be engaged in value transmission. But this is such a special case that I doubt that this is what teachers will believe it to mean, let alone what the authors have meant. But it is worth noting that this is a possibility.

descriptive or a more in-depth conceptual one. And the question of what are human needs and what count as problems could be dealt with in both the descriptive sense and the inquiry ethics sense. If anything, the fact that a historical perspective is embraced makes it an even stronger case for descriptive ethics than the inquiry ethics approach. Hence, it is interpreted as a reference to descriptive ethics.

There are other references to ethics in the section regarding core contents as well. Several bullet points include formulations such as "identification of needs" (p. 256), which relates to the discussion above. Under the heading "Technology, man, society and the environment," one point states that a core content is "The Internet and other global technical systems. Systems – their advantages, risks and vulnerabilities" (p. 257). It is rather clear that these are ethical "advantages, risks and vulnerabilities." The discussion about, as well as identification of, these is a question of ethics, amongst other things such as the technological characterisation of the system in question, the assessment of its technical properties, and so on. In order for something, once identified, to be deemed a risk, values must be assumed or identified. The term "risk" is mostly taken to be ambiguous in the context of technology. Hansson (2001) distinguishes between five common usages, amongst which the first four are possible meanings in the context of the syllabus. All of these have an ethical aspect; they all take risks to have to do with something of negative moral value. This can in some sense be taken to be a question of descriptive ethics, in case the interest lies in what risks society perceives, for example. But most notably it seems to be a question of finding what risks exist, and also reasonably of discussing what standpoint to take and how to assess perceived risks. Hence, it is first and foremost a question of inquiry ethics, but which might need an element of descriptive ethics as a starting point.

There is also a bullet point about recycling, partly containing the formulation "How technological solutions can contribute to sustainable development" (p. 257). This has an ethical aspect. What counts as (or is) sustainable is a question of values, and hence of ethics, amongst other things. Once again, it seems to be a question of partly descriptive ethics and an inquiry ethics approach. The former to the extent that one is interested in *what people believe* will be sustainable; the latter to the extent that one is interested in *what is* sustainable, as well as in the students' abilities to reason about and think about what is sustainable and what is not, and discuss these matters with each other. It is possible to also interpret this as implying a reference to value transmission, since one might think that the clause "and learn that one ought to do what is sustainable" is tacit. I have been careful with interpreting tacit assumptions, but this might be one of the stronger, so it is worth noticing. It is said in the general sections of the curriculum that school should foster respect for the intrinsic value of our shared environment (Gardelli et al., 2014), and this gives support to this interpretation of a tacit reference to value transmission. On the other hand, since it is not stated this interpretation seems too uncertain to be concluded upon.

The next bullet point makes an explicit reference to ethics. It states that among the core contents are "[c]onsequences of choice of technology from ecological, economic, ethical and social perspectives, such as in questions about development and use of biofuels and munitions[114]" (p. 257). This is interesting for several reasons. The first is that this explicit

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[114] In Swedish, the word used is "krigsmateriel," i.e. munitions of war.

reference to ethics in relation to consequences gives support to interpretations discussed above regarding formulations about consequences. The second is that this gives support in general to interpretations that ethics is implicitly referred to throughout the syllabus. Third, it is a reference to ethics itself, which needs interpretation. Since it explicitly refers to social perspectives also, doing charitable interpretations implies that one should hold that descriptive ethics is not what is sought after here, because what would have been entailed by descriptive ethics is already present in the social perspective. It is also hard to figure out what it would mean to include consequences of choice of technology from a value transmission perspective[115]. It therefore seems that value transmission is not intended in this formulation. An inquiry ethics approach, however, seems like a fairly reasonable interpretation. This reasoning, in turn, gives further strength to interpreting other references to ethics as at least partly a question of inquiry ethics, since not only the first, but also the second explicit use of the word "ethics" is a reference to the inquiry ethics approach. In accordance with the parts-whole circle of hermeneutics, both of these parts (the explicit references to ethics) seem best interpreted as references to the inquiry ethics approach, and this gives support to interpreting this as a strong candidate in the whole picture, which then further strengthens the interpretations of the parts.

The last bullet point seems to be a reference to descriptive ethics. It states that a core content is "[h]ow cultural attitudes towards technology have an impact on men's and women's choice of occupation and use of technology" (p. 257). These cultural attitudes reasonably involve moral attitudes, and hence it is a reference to descriptive ethics.

There is a bullet point stating that a core content is "safety in the use of technology […]." This could be said to be a reference to ethics, if it is intended that students should be fostered into regarding safety as something important, that they were to be made to care about safety, or discuss the moral status of safety. This interpretation would be a stretch too far though, it seems. There is no formulation about what the students should believe, or what their opinions should be. A simpler interpretation of this quote is that safety is merely taken to be an intra-technological concept here. Discussing whether or not safety is good, or transmitting a positive valuation of safety to students, is something else. This formulation simply states that it should be taught to the students that a certain way of handling electricity, for example, is safe, and that another way is not safe. Whether or not one should value safety is something else. Probably, it is presupposed that the students want to be more safe, *ceteris paribus*, and hence that this value neither needs to be transmitted nor discussed. Hence, the quote above is interpreted as containing no reference to ethics.

Throughout the section "knowledge requirements" for the lower grades, there are formulations of the following kind: "Pupils can apply well developed and well informed reasoning over how some objects and technical systems in society have changed over time and show the driving forces of technological development. In addition, pupils can apply well developed and well informed reasoning about how different technological choices can have different consequences for the individual, society and the environment" (p. 260). In regard to another school year, the formulation is similar but somehow different. The ending is now instead "[…] but also the advantages and disadvantages of various technical solutions for the

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[115] See again the footnote number 2.

individual, society and the environment" (p. 258). This, concerning the disadvantages and advantages for individuals, society and the environment, is a formulation about ethics. What constitutes such a (dis)advantage is a matter of values, a matter of ethics. And in the former formulation, the formulations about consequences are similar to those discussed earlier, which have been interpreted as ethical references. This, then, is yet another instance which, with abductive reasoning, solidifies this interpretation.

Whether this is to be interpreted as primarily being about inquiry ethics or descriptive ethics is not obvious. The first thing to be noted is the emphasis on reasoning, which speaks for interpreting in favour of an inquiry ethics approach. The second is that it is explicitly a question about something more than how technology has developed. Part of the driving forces behind technological development are people's valuations and moral opinions. Focusing on these factors is doing descriptive ethics. Hence, the first part of the quote is about descriptive ethics. But it is clearly stated that there should also be something else. And this, the focus on consequences for the individual, society and the environment, would then be taken to be a question about reasoning about whether or not some specific object or technological system is good or bad for those entities, hence a question of taking an inquiry ethics approach. The formulation about (dis)advantages furthermore strengthens this interpretation. Hence, the passage quoted prescribes that there be both descriptive ethics and an inquiry ethics approach to ethics, the stronger in this case being the inquiry ethics approach, since descriptive ethics is merely implied by the inclusion of the formulation about driving forces, of which valuations and opinions are only a part, and which is only present in the grade specifications for the later years in school.

The presence of the approaches in the curriculum

To summarise, these findings suggest that ethics has a prominent role in the Swedish curriculum. The fundamental values are at the absolute core of the curriculum, and ethics has a central role in the overall goals and guidelines. Moreover, ethics is one of the perspectives that students should take as regards all content of the education. Ethics is also important throughout most of the syllabi. These results are in accordance with common interpretations in the research literature (Alerby & Bergmark, 2014; Lundgren & Söderberg, 1999). But when asking further what role or roles ethics should play, more precisely, things get complicated. We have seen that at least three different approaches to ethics are prescribed by the curriculum, three approaches that are quite different from each other.

In the general sections, the value transmission and the inquiry ethics approaches are the two approaches given most consideration, while descriptive ethics is not prominent at all. In parts of the section regarding the fundamental values, value transmission seems the most dominant. But in other parts of the general section, the inquiry ethics approach has the strongest presence. And some of the most important formulations about ethics are references to the inquiry ethics approach, for example the explication of the ethical perspective that should permeate all education.

Regarding the syllabi other than Technology, it was found that some syllabi only contained implicit references to ethics, while others included both explicit and implicit references.

Explicit references were found in Art, English, Biology, Physics, Chemistry, Geography, Religion, Civics, Swedish, Swedish as a second language and Technology. As was shown in Table 3 above, explicit references to descriptive ethics were found in two syllabi, namely Religion and Technology, while explicit references to value transmission were found only in Geography, and explicit references to inquiry ethics were found in 8 syllabi, namely English, Biology, Physics, Chemistry, Geography, Religion, Civics and Technology. In the case of Art and Swedish, there were cases which could have referred to any of the approaches, while in Swedish as a second language, there were cases that could have been referring to value transmission or inquiry ethics.

Some syllabi only contain implicit references to ethics. These are Home and consumer studies, Physical education and health, Modern languages, Mother tongue tuition, History, Crafts, and Sign language for the hearing. In Mathematics, there were some formulations which might be taken to be implicit references to ethics, but my conclusion is that they are best understood not to be references to ethics. In Music, no references to ethics are made. The implicit references to ethics are again summarised in Table 4 showing that implicit references to descriptive ethics were found in 5 syllabi, namely Home and consumer studies, Modern languages, Mother tongue tuition, History and Sign language for the hearing, while implicit references to value transmission were found in three syllabi, namely Physical education and health, History and Crafts, and implicit references to inquiry ethics were found in the same five syllabi as descriptive ethics, that is Home and consumer studies, Modern languages, Mother tongue tuition, History and Sign language for the hearing.

There is also an interesting difference between explicit references and implicit references. Among the explicit references, the inquiry ethics approach is very dominant. There were clear-cut cases of explicit references to the inquiry ethics approach in 8 subjects, and even a few more syllabi that contained expressions that were interpreted as possible references to this approach, while only two indisputable references to descriptive ethics and one to value transmission, and also a few possible additional references to these approaches as well. Among the implicit references, the differences between the rate of occurrence of the respective approaches was considerably smaller. The inquiry ethics approach and the descriptive ethics approach seemed strongest, and fairly equal in importance. Concerning the syllabi as a whole, then, the inquiry ethics approach was most strongly prescribed by the syllabi, the descriptive ethics approach being the second most important, while value transmission had the least significant role. Of course, as shown in the tables, in some subjects, only one or two of the approaches was represented. But even if all of the approaches are present in one syllabus, one or two of them might be the most eminent in that syllabus.

Ethics has a prominent role in the subject of Technology as well. However, in the syllabus for the subject of Technology, the value transmission approach is not at all included. Instead, descriptive ethics is referred to frequently. The descriptive ethics and the inquiry ethics approach were both important approaches in the syllabus, and it is difficult to say which has the most prominent role in the Technology syllabus. But the fact that all explicit references to

ethics were interpreted as references to inquiry ethics speaks in favour of the inquiry ethics approach.

To sum things up regarding the subject of Technology, ethics is deeply and intricately a part of the subject, throughout the different sections of the syllabus: from aims through core contents to the knowledge requirements. Ethics is referred to both explicitly and implicitly. In interpreting the different statements and formulations, it was found that both a descriptive ethics approach and an inquiry ethics approach to ethics were prescribed, but no references to value transmission were found. Although there were formulations which at first glance could be considered to be concerned with value transmission, a more thorough scrutinising gave stronger support to other interpretations. Both descriptive ethics and an inquiry ethics approach clearly have important roles in the subject of Technology, but if one of them is the more central one, it is the inquiry ethics approach. All explicit references to ethics were interpreted as references to the inquiry ethics approach. But since value transmission is so notably proposed in the general sections, it would still have consequences for teaching in Technology, since the general sections are meant to apply to all education. Moreover, since the inquiry ethics approach is also notably present in the general sections (in contrast to the descriptive ethics approach), the inquiry ethics approach is therefore the one most heavily endorsed by the curriculum to be included in the Technology classroom.

Hence, in the syllabi, both in terms of the number of syllabi where a certain approach is present, and in terms of the strength of that approach in each syllabi where is occurs, the inquiry ethics approach seems to be the most dominant. In the general sections, value transmission and the inquiry ethics approach are the approaches given most consideration. But in the syllabi, value transmission has the weakest role. Table 5 below summarises this:

Table 5. The presence of the approaches in the curriculum.

	Descriptive ethics	Value Transmission	Inquiry ethics
Role in the general sections	Minor	Major	Major
Explicit references in the syllabi	2	1	8
Implicit references in the syllabi	5	3	5

Another important result is that in many cases, as we have seen, working out one clear interpretation of a certain expression, that is more reasonable than other rivalling interpretations, is a difficult task. In many cases, I could not accomplish that task (even though I spent considerable time on the task, more time than I think that the normal teacher is able to spend on reading the curriculum at all). And in several cases, my interpretation could certainly be challenged, and more than one interpretation was indeed possible. Hence, it

might be too difficult to be done in school practice. Possible implications of this will be dealt with in the discussion section.

Students' moral reasoning

In this section, I will turn to the students' moral reasoning through describing the processed interview data, and justify this processing through describing some of it, in order to try to understand the students' moral reasoning about technology and technology choices. I will first turn to the students' reasoning about technology choices.

Students' reasoning about technology choices

As shown in the background section, abilities related to reasoning about technology choices are increasingly seen as important for the students to develop in (relation to) the Technology subject (Vázquez-Alonso et al., 2014). Many researchers hold it to be among the most important aims of education in technology (cf. Pedretti, 1997).

The students' answers contained much more than simply a judgement of how to act in the presented situations. Many students gave arguments for their positions, and expressed reasoning behind their judgements regarding whether or not to embrace the new technology at the moment. As detailed in the methods section, I presented a basic case to the students, and asked them to tell me how they reasoned about it, and after their initial answer I asked them some follow-up questions. The core content of the example was as follows:

> I (Interviewer): I have a small example, a situation, which I would like to hear your thinking about. There is this kind of machine, a so-called "pacemaker," which can help people with heart diseases. [And here, we would briefly discuss what a pacemaker really was, if they wanted to.] Let's say that this technology develops and somebody invents a better pacemaker than those existing today. If we were to build the factory needed to produce these better pacemakers, there would be a leakage of poison that would hurt some people working at the factory and some people living nearby. About 20 people would die, but they could save thousands with heart problems. What do you think: should the factory be built or not?

The reasoning by the students varied a lot, in many respects. These kinds of variations will be addressed in fuller detail in a separate chapter below (see "Varieties in students' moral reasoning"). Some of the students were of the opinion that the factory ought to be built so that the technology could be used, while others expressed the view that it ought not to be built, at least not under the circumstances outlined in the example. What was most interesting to this study, though, was their reasoning behind their opinions and judgements, and the arguments they gave to support their conclusions about how to handle the technology at hand. The students' reasoning could be seen to express, or be instances of, all major normative theories – consequentialism, deontological theories, and virtue ethics – as will be evident below.

Consequentialist reasoning

Some students' reasons were based on the consequences of actions, in a way that is best interpreted as that they give consequentialist reasoning, but not necessarily utilitarian.

> S (Student): It does not seem reasonable [to build the factory], because if everybody who lives close by dies, or will die, then those working in the factory will also die, and then new workers will have to start working there all the time, and those will die too. So everyone will die, as time goes on.

This reasoning is interesting, for several reasons. First of all, it seems to be a consequentialist reasoning in that what is highlighted as morally relevant in trying to decide whether or not to build the factory is what consequences the different acts will have, in this case what the consequences of building the factory would have. But while it is a case of consequentialist reasoning, it resembles a famous kind of argument given by Kant, as described above. It is not far from this reasoning to the conclusion that it is a perfect duty to not work in that factory, and without anyone working there, there would be no point in building the factory (as the case was described). But this route is not taken by the student. Instead, the student moves on to criticise her own reasoning and identify a counter-example to her own argument, namely that people could live away from the factory and commute, which leads to another argument for her position that the factory ought not to be built:

> S: And if someone starts working there and commutes in order not to die from living near the factory, then that person might take the sickness back to their family, and then the sickness will spread to almost the whole world. And that is not very good. And, technology always moves forward, so in a few years we might have found something even better. Then it might help [the people with heart diseases] even more than that first one would have done.
>
> I: Yes, and then you think that it is smarter not to build something that is dangerous?
>
> S: Yes, and it is not at all certain that one survives even if it [the pacemaker] is very good. But healthy people would not have died, most likely not have died, if that [factory] had not injured them.

The fact that poisoning (normally) does not spread to others (contrary to e.g. a virus infection) is not of relevance here. It is worth noting that this student does not accept the initial description of the example, she does not accept the premise but changes the setup. It was said in the example that only twenty people will lose their lives, but she did not accept this calculation. It is a demonstration of great intellectual courage and independence to question and discard the case provided by a grown-up. I think it is also a sign of the student feeling an acceptance from the interviewer for whatever thoughts she wishes to express; a feeling that what is actually of interest and importance is what she thinks, not what anybody wants her to think, and that she perceives a freedom to let her own thinking be as it is and to express it as it is. It could, of course, also be due to her not having noticed all the details of the case, but it seemed (based on the rest of the interview), as if the better interpretation is that the consequence of her own reasoning was that she had to change her beliefs of the case at hand.

The reasoning by the student quoted above can reasonably be seen as a kind of consequentialism, since what she seems to give weight to is what happens as a consequence of her decisions, rather than the kind of decision taken. More precisely, it seems to be an expression of act utilitarianism, either an "actual consequences" version of act utilitarianism, or an "expected consequences" version of act utilitarianism. It could be thought that it is an adherence to rule utilitarianism, but since she reasons in terms of what will happen as a consequence of that specific act, rather than what would happen in general if people made similar choices, i.e. followed the same rule, it is better understood as a form of act utilitarian reasoning. It might be taken to be a utilitarian reasoning similar to that which Parfit presents in his milestone *Reasons and Persons* (Parfit, 1984), but this is too fine grained to dig deeper into, because all of these suggested theories are versions of consequentialism. From such a consequentialist approach, the student derives the answer that the factory should not be built. As we shall see below, other students come to the conclusion that the factory ought to be built from seemingly consequentialist reasoning.

Other students came to the conclusion that this technology is still so important that it is correct to build the factory, based on seemingly consequentialist reasoning:

> S: [O]ne should still build the factory.
> I: What is your reasoning behind that?
> S: Because those who live nearby, they can move. And if it saves more lives than those who die, then it is only good.

This can easily be interpreted as an expression of some sort of consequentialism, and the idea that one should maximise the number of lives saved. I cannot think of a better interpretation. To be more precise, it seems it should be seen as some kind of utilitarianism, such as some form of act utilitarianism, together with the supposition that one could do interpersonal comparisons of utility and say that more people saved means more utility, and hence that more people saved would be better. Something like this seems to be what the student had in mind. As we shall see in the discussion, there are further reasons to believe that this reasoning should be seen as an expression of consequentialism. Other students seemed to reason similarly:

> I: Should the factory be built?
> S: My view is that it should be built. [Very confident in her voice]
> I: Mmm, why? Can you explain?
> S: Because it saves more people if we do it. And then, yes.

This student was very clear in her view that if more people can be saved than those that will die, then the factory should be built. It seems she was very clear in that what matters is how many lives can be saved, and hence it seems like a typical consequentialist reasoning.

> S: Is it only when you actually build the factory that [people are killed]…
> I: Yes …
> S: Okay, but then one can build those new ones.

This student does not explicitly state the idea that more lives saved is better, as did the above mentioned student. But taking into consideration the totality of the statements, the "whole" of the text, my interpretation is that this student in fact reasons along similar lines. The third statement by the student states that if it is more than twenty people dying, then it is not evident that you should be building the factory. This seems to imply that there might be a point in doing it if fewer people die, that is, if a larger number is saved than the number that die, but that there is some point where the balance is shifted over. This would then be a similar consequentialist reasoning to the above.

Rights, duties, consent and voluntariness

Just as some students who were reasoning based on consequentialism came to the conclusion that the factory ought not to be built, so did some students who seemed to reason based on different premises and in different ways, seeming to adhere to other normative positions. One example is the following:

> I: [Should we build the factory?]
> S: Well, it depends. That is … I don't know. It's like, well, it can save more [people], but still they will die … well, [people] that do not have the illness die, that have been completely healthy.
> I: And what do you think of that?
> S: Well, it feels a bit wrong. Because they do not have anything to do with it.
> I: [I]s it possible to say whether one should build the factory or not? Is there anything that tips the balance?
> S: I do not think one should build it, in that case.

This student also decides against building the factory, but seemingly based on the idea that innocent people (or those who do not deserve anything bad and have nothing to gain from the building of the factory) should not be harmed, even if that means that a larger number of people cannot be saved. Several other students as well, as we will see some more examples of below, considered innocence to be important to the decision. This might be interpreted as duty ethical or rights ethical reasoning, because it bears marks of reasoning from both Kant and Nozick. As we have seen, Nozick claims that moral rights can be inferred from the principle he accredits to Kant, that one should not treat another person as a means, but always as an end in itself.

It could also be noticed that the first student whose reasoning was presented above spoke specifically about healthy people (who would have died had the factory been built, but not otherwise), and the directly above quoted student spoke about people who had nothing to do

with heart disease from the start. Both these instances of reasoning seem to touch upon some idea of moral desert; the idea that some people might deserve some moral outcomes, while others might not. I will return to this kind of reasoning more below.

Some students seemed to think that while there was something desirable in saving a larger quantity of people, this could not be carried out in just any way. The idea of informed consent surfaced in a few of the interviews, as such a condition that had to be met, in order for the factory to be built:

> S: I do not think one should build the factory. [That is,] unless the workers are people who volunteer doing it, knowing the conditions.
> I: Why do you think ?
> S: Because it is not, like … it is like murder, if you build a factory and know that it is dangerously toxic there and let people work there who do not know.
> I: Even though one can otherwise save more people?
> S: Yeah.

This student thinks that if people working in the factory are unknowing of the conditions, or work there involuntarily, it is not morally permissible to build the factory, since having these people work there would be a case of murdering them. And that would, of course, not be to treat them as ends in themselves, but rather as means, and hence would violate their rights, and would be immoral behaviour, according to rights ethics. It seems, therefore, that this is a case of rights ethical reasoning. Others also pointed out the importance of informed consent, while not explicitly drawing the conclusion that a deviation from the principle of informed consent would make it a case of murder:

> S: […] And then those who will actually die from the construction of this factory also think that it is okay that "if I die, others can live," because it is really not okay if they just suddenly die.

Choosing which lives to save

Below is another example of student reasoning that touches upon the idea of consent, and this reasoning also includes another idea that was found in several of the students' reasonings:

> S: That depends on what those that actually have the heart disease think, if they think that "these people's lives are worth my life, that I can let them die, as long as we who have the heart disease get to live." Then if it is, like, depending on whom it is, also, whether maybe it is someone who is not very old but has his whole life in front of him, or if it is someone old who will die very soon. Then, maybe, if the person [saved] is very old then it might not be worth it. And then those that actually die must also consider it acceptable that "if I die, others can live," because it really is not OK if they just suddenly die, and so on.

This reasoning contains the idea that there must be consent from those who would lose their lives, for the construction to rightfully be carried out. Also, it touches upon the idea that whether or not it is reasonable to build the factory does not simply depend on the quantity

of lives saved, but also *which* lives are saved; is it the lives of young people, with much time ahead of them, or is it the lives of older people, who might not have that much time ahead of them in the first place. This kind of reasoning was expressed by several students:

> S: *Yes [we should build the factory], but then one should not have taken just anybody to work there, but someone who like, maybe was very old, or something, but could still work.*

It is thus rather clear that some of the students uphold the idea that lives are different in terms of save-worthiness, i.e. how reasonable or important it is to save them or keep them alive. Young, healthy and innocent people are by many students stated as more save-worthy than people who are very old, sick or sentenced to jail, as we will see below. It is again interesting to compare it to the idea of the equal value of all people:

> S: *If one lets such people that would otherwise be in jail all their life work in the factory. Yes, then it would be okay. […] Or, well nobody ought to die, but people die anyway. So, I don't know. Yees… But, no I have no other [suggestion]…*

The last expression is interpreted as meaning that the student does not have any suggestion that she thinks is better than suggesting the building of the factory, after all. The reasoning above, in several of the students' reasonings, seems to contradict the idea that all people are equal in value, at least in a plain and straightforward understanding of that principle. For example, the students seem to say that those that are healthy should not be jeopardised in order to try to save people with heart disease. On the other hand, old people or people in jail are suggested as candidates for work in the factory that the students do not think should be given to young and healthy people.

The idea of different sorts of innocence, or moral deserts, is touched upon in several examples above, and it is also expressed in the following quote:

> S: *Both build it and not. Because it is like … yes. Because those people who live close by, they have got nothing to do with it, you know. That is, they have no heart disease, if you put it like that. And, like, the innocent die, sort of. So, in that sense I think that one ought not to do it. But I think that anyway, because it will save more lives, if it saves a thousand people, and then it is almost worth those twenty … because it is more after all …*

This is but one example where students reason in terms of moral desert, an idea that is commonly found in everyday morality, as we have seen above. More students reasoned in similar ways:

> [I: Should the factory be built?]
> S: *Yes, if they have to build it … But, no, they [the pacemakers] mostly help the old, those who will anyway die soon. But if it, well, if it is young people who are saved it might be worth it.*
> I: *But if it is old people [who get the pacemakers], and it was young people who lived nearby?*
> S: *No, then it's not worth it.*
> I: *But if it is young people who are saved, is it worth it then?*
> S: *Yes.*

This student was first of the opinion that the factory should be built because it would save more lives than it would cost. But then, thinking more about the case, she realised that it was likely to mostly help old people, who would not have much time left in life, even if temporarily saved by the pacemakers, while on the other hand it would probably cost the lives of young and healthy people. She then changed her mind and considered fewer young lives more save-worthy than a larger amount of old lives. But if, on the other hand, the ones saved would have been young, she thought that the factory should be built after all. This quite clearly shows that she considers some lives more save-worthy than others, and hence she reasonably also considers those lives to be different in value than other lives. And as we saw in the first example under this heading, some students explicitly discuss valuations of different lives. Hence, as we have seen, many students reason along the same lines of different lives being more save-worthy than others.

Virtue ethics and care ethics

Some students reasoned based on special relationships, such as the relationships with family and loved ones. For example, one student gave the following line of reasoning:

> I: [So, then, should we build the factory?]
> S: No. Or, well, it depends. If it would have been someone in my family, I would not have wanted it, but.
> I: No.
> S: But, like, if I do not know who it is …

This might be interpreted as a case of egoistic reasoning, in that the student did not want people she cared about to be hurt, simply for egoistic motives. But, based on the other reasoning in that specific interview, that does not seem like the most reasonable interpretation. Instead, it could be understood as a kind of care ethics reasoning, that the student thought it morally permissible to give special consideration to the people close to her and that she cared about. She did elsewhere notice that all people are important, but in this reasoning still puts more emphasis on people that she cares about. And such reasoning might be in accordance with care ethics. Indeed, that such reasoning, by some viewed as immoral favouritism, is embraced by care ethics is sometimes considered a counter argument to care ethics (cf. Halwani, 2003).

In sum up, the students reasoned in accordance with several classical normative theories when reasoning about technology choices. It is therefore implicit that there are varieties in their reasoning, which will be made explicit in the last section of the results. It is also of interest to investigate how the values found in the reasoning presented above correspond to the values of the curriculum, which will be done in the discussion section.

Students' reasoning about how to act online

In this section, I will present some results regarding the students' reasoning about online behaviour in particular, based on interviews with students. There are many aspects of online behaviour that could be discussed, and since the interviews were semi-open in nature, students might be encouraged to raise their own issues, and since I tried to make the interview a kind of a dialogue where I listened to the student and what the student had to say, and asked some questions in regard to the statements of the interviewed student, there was a possibility that several different issues would surface. But my intention with the interviews was not to discuss online behaviour in general, but more specifically questions regarding what information to share online: what to say about oneself and others. Hence, topics such as cyberbullying will not be addressed intentionally or explicitly, although the students discussed some issues that have a bearing on such questions as cyberbullying.

I will group the presentation of the students' reasoning under three headings; first, the students' reasoning about sharing personal information online, second their reasoning regarding adults' views and directives on sharing personal information online, and third, moral freedom to publish information online and the consequences for other people.

Sharing personal information

Many of the students reported quite similar principles regarding how to treat personal information online, what to post on the Internet, and what not to post. Several students claimed that one should not post what they termed as "personal information" online.

> S: Well, I do not think that one should write very personal stuff, like … I don't know. But there is
>   certain stuff that one could write, of course.

Several students claimed that one should not state one's name online. Moreover, many students explicitly stated that one should not post one's postal address online, this kind of expression being one of the most common statements among the students:

> S: One should perhaps not write where one lives, and maybe not one's full name.

> S: One should not post [information about], like, where one lives, and the like.

> S: One should not hand over personal information to people that one does not know.
> I: Why not?
> S: They might not be nice at all.
> I: What is personal information?
> S: Name, where one lives.

> S: Yes, one should not write too much.
> I: And what is too much?

S: *Where one lives, and what town. One could state one's name, of course, because there are many people named [the same as me], maybe. And then one's age. But then …*

But, as implied in the last quote above, some of the students noted that (in Sweden) someone's address can be found if you have their name (unless very many people have the same name). And some students seemed to note that this meant that the principle of not posting your address online was rather meaningless, since people interested in finding it out could easily do so anyway:

S: *Er, only, like, one's name. Or, if one posts one's name they can still search [specific Swedish internet site for looking up addresses] where one lives and stuff, so actually one should post hardly anything at all.*

S: *No, if one has [a popular SNS] only for one's friends, then one could post phone numbers. But otherwise, then one should not do it, because one could search [specific Swedish Internet site for looking up addresses], phone numbers, and then they can find out where one lives.*

While many students claimed that you should not reveal your full name, several students also explicitly stated that you could post your name online, as we have already seen some examples of above. It should be noted that these interviews were carried out in 2011, at a time in which a trend was underway, and had been for a couple of years. In the early 2000s, it was quite common to interact online using an alias, an Internet username, maybe even an Internet persona. Users on social forums had usernames that were different from their "real" names; their names as shown on a driving licence, passport or something similar. But this has changed, and in recent years, people have become used to interacting with others under the condition that both parties know the identity of their counterpart. One driving factor behind this is probably some popular services with policies requiring using real identities as profile names. This change has been around for years, and at the time of the interviews, the students told me that most of them were members of an SNS with a "real name policy" although they were in fact a year or two too young to be allowed to join, according to that website's policy. It is quite safe to assume that a vast majority of them used their real identities (although probably not their real birth data) on this site, as we have seen above. Several of them also mentioned such a site during the interviews.

Several of the students said that you should not post your phone number online. Several students also defended this claim by stating that if someone has your phone number, they can acquire your address and know where you live. Some of the students also continued thinking about the situation:

S: *If one posts all sorts of information about oneself, everything one comes up with, then there are many people who can track you, and stuff, and search for you, so they know where you live. And then people can even go around and spy on you, so that they know what you do every day, and everything.*

I: *Why do you think that one should not state where one lives?*

S: Because then those people who one doesn't know, they know where one lives. And that would feel weird, I think.

S: One should not write everything, you know. But one does not need to be, like, fully anonymous. One should not state exactly where one lives, and so on, of course.
I: Why is that specifically something that one should not do?
S: Well, because then people know that "It is there that she lives." And then they can go there and, yeah. Do something. But one could write: "I live in [city name].", of course.

Some students remarked that one could, depending on the technical platform, make one's information unavailable to the public, making sure only one's contacts could see one's page. But one student remarked that she did not see any point in sharing personal information anyway:

S: Even if you can, like, protect your page, and such. But I don't understand why one should post a lot of, like, stuff about where you live, and such stuff.
I: Yeah.
S: It's just unnecessary.

I: What do you think about writing stuff about oneself online?
S: Writing a little probably does not have any effect. But one has to be really careful about what one posts. To write that one listens to music is possibly not very dangerous, since there are so many people who listen to music, but stating your name, where one lives, how old one is, and one's phone number, and so on, then one has to be … One should probably not do it. Since if it goes public someone can use it against you.
I: Right, so stuff that singles oneself out, that one should not write?
S: No, but one could write about stuff that everybody in fact does. Or that very many people in fact do.
I: But if we are talking about something like [familiar SNS], so that one has one's own username, so that people know, that now it is she who is writing.
S: Then I think that one can post a little more private stuff. But still not very private. I, in any case, do not want everybody to find out everything about me, even if I know them, like, in real life. And if they are to get to know something really private, I want to say it, like, "face-to-face", and not, like, through the computer.

This last example illustrates the old "online vs. offline/IRL/face-to-face" discussion (cf. Mayer & Till, 1996). It is also interesting because it highlights another, more general, idea about why one ought not to share personal information, in a broad sense, online. This student remarks that people might use this information against oneself, and hence, personal information should not be shared. I take this to be a general concern, not only the concern that someone you do not know might track you down offline, but more generally that the act of sharing personal information online can turn out to cause you trouble down the road. So this student, as several students agreed with, considered it best not to let others online know your offline identity.

Other students gave reasoning which might be seen as a continuation of the above mentioned fear that information might harm you in some way, in stating that one should not post such things that one might regret later on.

> I: What do you think about writing stuff online, for example about oneself?
> S: Like [familiar SNS]?
> I: Yes.
> S: Well, I do post stuff that I know that, like … Right now I have [the settings] that only my friends can read it. But, like, stuff that one thinks oneself … like, one should post what one oneself considers to be okay to post. It shouldn't be anyone else edging you on to post. But that one posts stuff that one knows that one will not regret.
> I: What kind of stuff can that be?
> S: I don't know.
> I: But, like, what do you think that, well, this I can stand by. This I won't regret.
> S: Like, what I have done today, that I have been with friends, or how school has been.
> I: Interesting. But such stuff that one thinks that one might regret, you think that one should not post?
> S: You know, then one thinks that it is embarrassing, like, "Oh no, why did I do that?" And if one removes it later, maybe someone has already read it, and so it gets passed on and then it becomes a rumour. So one should only post stuff that is true, and not stuff that is false.

In all, the students were generally very sceptical and against posting personal information online, stating that such information should be kept private, for several stated reasons.

In some cases, as some examples highlighted above have shown as well, students spoke of themselves and their situations, instead of general principles and general cases - although my questions were concerned with general, as opposed to personal, matters. I sometimes then asked them if they thought that the same principles should apply to others:

> I: Do you think it is, like, should other people do so too, you think, or?
> S: That is, of course, up to them. How they want it, that is. You know, I am not exactly afraid that some paedophile will come to me, but, well, I cannot really understand why one should [post a lot of information], so.

Several students mentioned fear of adults with bad intentions and actions. Some of the students talked about "them" or "they" who could, or would, do stuff. And, in accordance with prior findings, many students themselves seemed not to be afraid that something would happen to *them*. Some of them explicitly referred to such kinds of threats, but disregarded them. Others did not mention them at all. But there are also those in this study that express concerns that are in line with concerns previously reported to be held by grown-ups:

> S: One should not post where one lives, and such stuff.
> I: OK. Why do you think one should not do that?
> S: Well… because there can be a paedophile there. And then he knows where one lives.

> I: Why, do you think, should one not state one's age or name?

S: *Because there can be people who kidnap you, or figure out where one lives, and the like.*

S: *One should not give personal information to people one does not know.*
I: *Why is that so?*
S: *They might not be nice at all.*
I: *What is personal information?*
S: *Name, where one lives.*

The implications of these kinds of answers, and their relation to the views of adults, such as teachers and parents, will be addressed in the discussion. In the following, I will turn to the students' explicit statements about the views of adults as regards the above discussed matters.

Students' reasoning on adults' views and directives

In this section, I will present students' reasoning about the views of, and directives from, adults regarding how to behave online, specifically with relation to what information to share online. As is evident from many of the quotes above, different kinds of fears were clearly and explicitly expressed by some students. Several students also commented on what they perceived were the adults' views on how to treat personal information online, oftentimes in response to the interviewer asking them about what the adults thought that one should do or what the adults say that one ought to do:

I: *And, I'm thinking of … how do you perceive that grown-ups think that one should act?*
S: *One should not post one's family name, address, phone number and e-mail address to strangers.*
I: *Is that what grown-ups usually say?*
S: *Yes. And the like.*

I: *How do you perceive that grown-ups think – what do grown-ups say that one should do?*
S: *One should not say where one lives, and so on …*

One of the interviews constitutes an example of this, in the comments that I wrote when transcribing the text after the interview. I was restrictive about doing heavy theorising regarding the ways in which students expressed certain things and of interpreting and theorising on parts of the interviews that were not strictly translated into words, such as body language, tone, the length of pauses, stuttering, etc. But nonetheless, sometimes these kinds of things surface, and in one of the interviews I made the following remark in my transcript of the text:

S: *One should not, you know, give out your exact address. That is, exact street number. Or, like, [username on messaging service]. Or e-mail address or the like. And preferably not family name, but that depends, of course.*
I: *Why should one not do that?*
S: *Because one can be so fooled so tremendously easily.*

This last example is a bit interesting, because even though I had said to myself that I should not record non-linguistic stuff, I – in my notes and in the transcripts of the interviews – made the following remark after the last statement cited above: "She makes a clicking noise in the corner of her mouth, in a jaunty manner as people did in the olden days (that is, the first half of the twentieth century). I am not quite sure what she means by it. It feels like she is signalling that she knows that this is what grown-ups think that one should say, a bit like she is making an excuse for sounding so pretentious, or as if she does not really take it seriously. Hard to say, though." The reason I made the remark was that it seemed so obvious that she was signalling something by it, that she wanted to express something, that it was intentional.

Some of the students could also give arguments in favour of, or defence of, the principles they conceived the adults wanted them to follow. One example is the continuation of one of the above quotes:

> I: And, I'm thinking of … how do you perceive that grown-ups think that one should act?
> S: One should not post one's family name, address, phone number and e-mail address to strangers.
> I: Is that what grown-ups usually say?
> S: Yes. And the like.
> I: Do you agree, then? Do you think that it's reasonable?
> S: Yes, you never know who's behind the screen on the other side.

But some of them also had trouble understanding, or really accepting the views of the adults:

> I: Do you agree that: "yes, one should never do that,", or …
> S: … yes …
> I: … can there be occasions where that is okay, then?
> S: Mmm, well I don't think … you know, one could post one's name, but if one posts, like, one's phone number then maybe someone calls you up and asks you where you live, and the like, and that maybe isn't that good.

> I: What do you think about writing stuff about oneself online?
> S: Yes.
> I: Then one could write just about anything, sort of?
> S: Yeah, sort of.
> I: What do you think that grown-ups usually say about it, about what one should write?
> S: Not too private stuff.
> I: Do you agree with them, then?
> S: Well, as a kid one could … If one does not think it through, it isn't very smart to write exactly everything, but … yeah. Well, it could be good that they, like, tell you not to, so that you think twice about it. But it is of course okay if one really wants [to post] it.
> I: So you do not really agree with them, then?

S: Neah.[116]

In the first case quoted above, the interviewer asks the student if there might be situations where it is okay to go against what adults say that one should do. Of course, this is an external intervention from an adult, which might have significant influence on the view expressed by the student, as discussed in the methods section. And generally, I was very careful about asking these kinds of questions, but at the end of a discussion on a certain topic, I sometimes did. And as noted above, I felt that they were used to me asking questions and seemed fairly comfortable in the position that I wanted to hear their answers and thought about things, and did not really seem interested in them thinking specific things (as opposed to how students have been found to perceive teachers in school – it was fairly evident that they did not view me as one of the teachers, but knew that I was a researcher from the university). But, the question is not very intrusive in nature, or very provocative. I simply asked the student if there were any situations in which the rule do not apply? In other cases where I asked similar questions, the students simply said no. The question was very open and general in its nature.

The answer is interesting for two reasons. First, the student does think that it is acceptable to sometimes do something that the student knows adults say that one should not. And this was found in several other students' answers as well, and it is in line with what has been reported about their actual behaviour. But moreover, the defence of some of what the adults have been reported to suggest (that one should not give one's telephone number) is quite weak. It is hard to see why the student would consider it a big problem that someone could call you on the phone and ask where you live. If such a strange thing would indeed happen, you could just opt not to give that person the information. So the student seems to not really understand the problem of giving your phone number to someone, and seems to lack a strong support for that principle. (As we have seen above, other students remarked that your phone number could be used to track your address online, but this student seemed not to know that or at least not to think of that).

Freedom to act and the consequences for other people

As we have seen above, it was quite common that students considered there to be moral limitations to how one ought to behave online with regard to information sharing. Several of them considered there to be things that one should not post online, regarding personal

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[116] The student said "Njae", which is a compound of the words "Ja", meaning "Yes", and "Nae" (or "Nä"), which is a way of saying "No." It is also related to the word "Nja", which is a way of saying "Yes, maybe" (SAOL, 2016). "Njae" is used to signal a sort of negative response, but that isn't perceived to be as rude or offensive as straightforwardly saying "No." (Svenska Akademien (2016) discusses how the Swedish language has many nuances of the word "ja" (yes) depending on varying tone, prolongation (sometimes also with variations in expiration or musical tone), and the addition of "m-", "n-" or "tj-" sounds it before it.) One possible interpretation is that it would be hard from the student's hierarchical position to straightforwardly say "No", and this strengthens some of the interpretations made in the discussion about the existence of value transmission and its relation to students' reasoning.

information. On the other hand, it was also discussed what moral freedom[117] one has to express whatever one likes online.

A fairly common view was that one is free to behave whatever way one likes online. We have already seen examples of this above, like one student saying that if one really wants to write whatever about oneself online, then it is okay to do so. Sometimes, as in that example, this idea of freedom was accompanied by ideas that what determines how much one should write is what one's own psychology is like, not external factors. One way of understanding this is that instead of addressing the question of how one ought to act online (that is, the question of which behaviour is morally correct), they are addressing the question of how one wants to act. But another, which seems more reasonable to me (since they seem to understand that these are two different questions and they seem not only to speak about how one wants to act), is that they are giving the statement about how one wants to act as an answer to the question of how one ought to act. This is to say that whatever one wants to do is also correct. This behaviour has been identified by reports from The Swedish National Agency for Education, and by them described as "private morals," as we have seen above.

> I: Do you think it is, like, should others do [the same as you] too, you think, or?
> S: Well, that is up to them, of course. How they want it, you know.
>
> I: Such things as one's emotions, and the like. Should one write about that kind of stuff?
> S: That depends on how one is as a person.
> I: How do you mean, that …?
> S: If one does not have many things that one needs to keep secret, then one can write stuff, of course. But if one thinks that it is the very opposite, then perhaps one should hold back a little more.
> I: So it depends on one's personality?
> S: Yes.

In both of the examples above, the students argue that how one should behave depends on whatever one's psychology is. It could be thought that this was merely an expression of what prudence demands in the case – that what the students are saying is that if you are a person who enjoys speaking about yourself, then it seems prudent (or at least to be in accordance with your personality), at least in the short term, to do so. But if you are a more secretive person, then it would be more prudent to hold back on what you choose to publish. But from the rest of the interviews, as well as from the answers given by the other students, this does not seem to be the best interpretation. Indeed, they seem to be talking about morality, not simply prudence. They seem to be saying that it is morally fine either way. This is supported by another student saying similar things as well:

> I: The next thing I'm wondering about is the Internet, and what you think that one should post online, about oneself.

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[117] Of course, in Sweden, one is legally free to publish almost whatever about oneself – exceptions being for example that one is not allowed to publish material that is considered "hate speech." But even if one is legally free to do so, one might be (thought to be) restricted in one's moral freedom: for instance, several of the students thought that one should not (is not morally free to) post information about others online.

S: *That depends on the person herself. That is, if one likes to be seen, and one does not care about what somebody else thinks about it, that one isn't afraid, then one could write almost anything at all. About oneself, that is. Not about anybody else. But if one is a bit more shy and does not want others to know many things about oneself, then one does not need to write.*

I: *Mm. But you said "almost anything at all." Is there anything that you think that one should not write, irrespective, sort of?*

S: *I do not think that one should post stuff about other people.*

I: *No, but something about oneself that one should not post online?*

S: *I don't know. I think that one is free to choose whatever one wants.*

S: *If one does not want to write very much, then perhaps one does not want that. But there is nothing wrong if one wants to do it.*

I: *Is there anything that you think that it is wrong to write, irrespective?*

S: *Perhaps something that others do not want you to write, or something that one is not allowed to do.*

I: *So, if I do not want you to post stuff about me, then it is wrong to do so, irrespective of what it is about?*

S: *Yes, if you do not want it.*

Here, the students are speaking about what is "wrong" and that one "is allowed to choose" and they also easily connect to the wrongness they perceived to be connected to writing about others, which shows that it is a question of ethics, not prudence.

As evident in the examples stated above, and as we will see in several other cases as well, several students considered it wrong to write about other people, if these other people did not consent to it. Some of them considered it wrong to write about other people, whatever those statements were really about. Others said that you should stick to the truth, when writing about others. Still others considered it acceptable to write positive things about others, while not acceptable to write negative things about others, including your own feelings about other people, if these were negative:

I: *What do you think about writing about other people?*

S: *Then one can ask for permission, and so on.*

I: *But one should not write about others without permission?*

S: *Nah, one could, you know, write that … Or, no, no.*

I: *Not at all?*

S: *No.*

I: *One's feelings and those kind of things. Do you think that one could write about such stuff?*

S: *Er … that is, no. Or one could, one does not, obviously, write, like: "I, like, hate that person", you know. But one could write about one's, if one is sad, or happy, and those kind of things.*

I: *But, that with, when one writes "I hate that person." Should one refrain from writing mean things about other people, or could one write things about others at all?*

S: *Well, if it is good things I do think that one could write it, but not if it is something bad, I think, so that everybody can see. That, she does not like that person.*

S: *Well, one could post that one likes football. But it might not be terribly smart to write about that one is angry at somebody, and then you post it on [well-known SNS] so that everybody can … Because that can turn out really bad.*

In the first case, the students hold it unacceptable to share information about others, no matter what that information is, unless the parties concerned have consented to this publication. The student in the second example considers it to be okay if one writes nice or kind things about others, but wrong otherwise.

Several students discussed one's own feelings and emotions. Even though many of the students were negative towards publishing what they referred to as "personal" or "private" information, only one of them explicitly regarded statements about one's own feelings and emotions as "personal information," and that was done as a result of a direct question from the interviewer, since I was curious about how they thought about personal information, as will be shown below. Moreover, few students said that they held the view that one should not write about such matters, and on the contrary, several students reported that writing about one's feelings and emotions were among the things they considered it reasonable to do.[118] In some of the first interviews, I explicitly asked about the relationship between feelings, personal information and one's address, since it strikes me as strange that the student had reported explicitly that one should not publish personal information, and then said that you could write about your feelings. The first example is one that we have already seen above:

I: *One's feelings and those kind of things. Do you think that one could write about such stuff?*
S: *Er … that is, no. Or one could, one does not, obviously, write, like: "I, like, hate that person", you know. But one could write about one's, if one is sad, or happy, and those kind of things.*

I: *One's feelings, and that kind of stuff. How should one think about that?*
S: *That, one can write.*
I: *But you think that it is more private where one lives?*
S: *Yes.*

I: *What is personal information?*
S: *Name, where you live.*
I: *What one … like, feelings and the like. What kind of things one likes, and such. Do you think that is personal information, or? Should one post that kind of information, or?*
S: *Neah, it is not as, like … it is also personal information, but. One could not track anybody based on such information, if one, like …*

On several of the occasions that they spoke about feelings, though, they said that one should not report feelings about others that are harmful to those persons, which is in line with what we have already seen above about their views on how to treat others.

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[118] It should be noted that in some cases, this could possibly be seen as an expression of the idea that one could report one's feelings given that one did not share one's identity, since several of the students spoke as though one should not reveal one's identity. On the other hand, it might be taken that they did not mean it that way, since most of them most probably did not interact online under such premises, but rather were accustomed to interacting under their own name and identity. More about this in the discussion section.

Several students did say that one could post information about one's interests and what one likes to do, and similar information, online, as we have seen above. Some stated that this might be done since one might find friends with similar interests online. The first quote below was given by a student who had earlier come to the conclusion that you should post almost nothing online, since people might find out who you are and where you live from this information. (I presume that this student was also using the underlying premise that you should never let anyone know where you live, as many students gave voice to, but this particular student did not explicitly state that – but reading the interview it seems that this is presupposed. Unfortunately, I did not ask for a clarification on this point at the time.)

> I: But, are there any pros with writing about oneself, such as what one likes?
> S: Maybe someone likes similar things so that you maybe become friends with them, or something like that.
> I: And then you think that this outweighs the cons with doing it?
> S: Yeah … yes. Yes, or if the website where you post it is safe, then you can do it.

This is in accordance with what has been found in prior studies, as we have seen, which found that finding friends through browsing is quite common. This also raises the question of what is a friend and what is a stranger. Someone who you have met online, maybe as the friend of a friend, does this person count as a stranger or a friend? Unfortunately, I did not think about asking them explicitly about this in the interviews. The importance of concepts like friend, acquaintance, stranger, etc. did not strike me until later, at the time I was working with the processing of the interview data. There are some passages from different students that can shed some light upon this, but they do not paint a uniform picture. On the one hand, some of students state that you should differentiate between your friends and others, and it seems that among your friends can be people you have only met online. On the other hand, some of the students seem to say that the difference is between people you have met "for real," and those that you have not.

> I: Do you agree, then? Do you find it reasonable [not to pass personal information to strangers]?
> S: Yes, you never know who's behind the screen on the other side.
> I: So then everybody is a stranger?
> S: Yes, or not those that you know. Because you know who these people are.
> I: Yes.
> S: But those that you do not know, those are strangers.

> S: […] I, in any case, do not want everybody to find out everything about me, even if I know them, like, in real life. And if they are to get to know something really private, I want to say it, like, "face-to-face", and not, like, through the computer.

In summary, many of the students defended very restrictive views on disclosing personal information online, and it is interesting to discuss this in comparison with reported behaviour as well as in relation to the views on these matters normally held by adults. Both of these topics will be returned to in the discussion section below. Many of the students also claimed

that adults defended these same restrictive views on sharing personal information online, and some students explicitly rejected the adults' views on these matters. Although the students defended the view that one ought to be very restrictive with posting information online, many of them also defended what can be seen as "private morals", or moral relativism, in that it is morally permissible to post however much one wants about oneself online – at least as long as this does not hurt other people. This is possibly conflicting with the restrictive views described above, and it is interesting to discuss this, which will be done in the discussion section. It is again noticeable that there were varieties in their reasoning, not only in terms of the themes of their reasoning, but the substantial moral views expressed or defended. I will now turn my attention directly to the varieties in the students' moral reasoning.

Varieties in students' moral reasoning

In this section results regarding inter- and intrapersonal variety in the students' moral reasoning will be presented, based on data processing using the distinction between decision methods and criteria of rightness in order to obtain a detailed picture of data about students' moral reasoning and provide a nuanced understanding of varieties within this reasoning.

Through utilising the two dimensions of moral reasoning described above, stemming from the distinction between criterion of rightness and decision method, in the data processing, six forms of variety in the students' moral reasoning were found. These are called: (i) interpersonal variety in decision method dimension, (ii) intrapersonal variety in decision method dimension, (iii) interpersonal variety in criterion of rightness dimension, (iv) intrapersonal variety in criterion of rightness dimension, (v) interpersonal variety between the two dimensions, and (vi) intrapersonal variety between the two dimensions, as shown in Table 6.

Table 6. Six forms of varieties in students' moral reasoning.

	Interpersonal variety	**Intrapersonal variety**
Decision method dimension	(i)	(ii)
Criterion of rightness dimension	(iii)	(iv)
Between the dimensions	(v)	(vi)

In the presentations of (i)–(iv) below, a short description of interpersonal variety will first be given, and, second, a more exhaustive description of an example of intrapersonal variety will be presented, since these require a more fully developed description and data processing in order to arrive at a justified interpretation. Interpersonal variety between the two dimensions of moral reasoning (v) can be inferred from the results presented in (i)–(iv), as described below. In the presentation of (vi), a more in-depth description of an example of intrapersonal variety is presented. Furthermore, it might be thought that the interpersonal variations that will be presented below can be explained by the differences in ages – the students being 12 to

15 years old – but interpersonal variations were found within the same age groups, as we have seen some examples of in the results presented above.

Variety in decision method dimension

In this section, some cases of variety in the reasoning in the decision method dimension will be presented, starting with interpersonal variety, i.e. differences in moral reasoning between one student and another, and then moving on to intrapersonal variety, i.e. variations in moral reasoning expressed by one and the same student.

(i) Interpersonal variety

The students expressed several different ways of reasoning in the moral matters considered in the interviews. As has been evident in the results presented above, their reasoning correlated well to most of the well-known normative theories in modern moral philosophy. For instance, they emphasised virtues, such as being fair, kind, and honest, as a basis for acting towards others. On the one hand, some students argued that one should never lie, never promise to lie, and keep promises, typically duty ethical reasoning. On the other hand, some students explicitly claimed that it is acceptable to break promises, for example when someone else's well-being depends on it, or when it is perceived as necessary to break a promise in order not to violate someone's rights, reasoning that can quite confidently be categorised as consequentialist. Another position that was emphasised was that one has the moral right to control what information about oneself is posted online, a reasoning that would harmonise well with rights ethical theories.

As noted above, some students reasoned based on considerations of others' well-being. Some students said that what one should do depends on the consequences of one's acts. For example, in discussing a question of the online publication of pictures of friends that do not know they are in the picture, one student first argued that you ought to break a promise to a friend if a second friend has 'the right to know' the information that you promised not to tell. But the student then added that you should not break the promise given that the second friend does not know that you have this information, and that he or she therefore does not suffer from it. And, as we have seen regarding reasoning on technological choices, some students argued that what mattered in making the choice of whether or not to build the factory were the consequences that the different acts would have, and that the act that had the best consequences (or best expected consequences) is the one the should be chosen.

Caring perspectives were emphasised by some students, as was acting to promote certain close relations, both of which can be seen as cases of care ethical reasoning (cf. Gilligan, 1982). For example, some students said that whether or not you should break a promise depends on whether the one you made the promise to was a good friend or not.

To sum up, the students expressed extensive interpersonal variety in their moral reasoning on decision method level. They emphasised central characteristics or important parts from several of the well-known theories from normative ethics, such as consequentialism, care ethics, duty ethics and rights based normative theories, as we have seen above, in their reasoning about decision methods. And since these are widely accepted as incompatible, the

existence of interpersonal variety can be inferred (even interpersonal contradiction, in so far as these theories are taken to contradict each other, which most moral philosophers seem to think that they generally do[119]).

(ii) Intrapersonal variety

Instances of intrapersonal variety were also found. This will be illustrated by the example below with extracts from an interview with one of the students. This student was faced with a dilemma in which one hypothetical student had promised a classmate to tell the teacher that the classmate in question was ill, and was therefore home from school, while in fact the classmate was not ill, but instead playing truant.

> I: *What do you think [the hypothetical student] should do?*
>
> S: *Well, actually, he should say that this isn't how it is. So, well, the friend wouldn't take it too hard if he told. […] If there were some reason, like if he [the friend] was going to do something, not play computer games or something, but if he [the friend] had some reason to do it, you can't say it. But if it's just because he wanted to do it …*
>
> I: *Yes, what could such a reason be …?*
>
> S: *Like… I don't know. If he's like going somewhere in the afternoon. You know, if he like needs to relax about something, or if he feels generally lousy.*
>
> I: *Mm, Okay. But if he doesn't. In other words, if it's just, for example like you said, that he wanted to play computer games?*
>
> S: *Mm, yeah, but then you would tell the teacher right away.*
>
> I: *What if [the hypothetical student] supposedly promised his classmate to say that he had stomach problems …?*
>
> S: *Like, I would never promise someone that I would say that he had stomach problems if he was healthy.*
>
> I: *But if you had promised. You would have agreed to do it, even if you now are saying that you wouldn't, but if we say you had done it …*
>
> S: *Yes.*
>
> I: *And what if it was that [the classmate] actually felt bad about his parents' divorce, for example …?*
>
> S: *(Interrupting) Then I would have said to the teacher that he had stomach problems.*

Initially, the student reasoned in a highly pragmatic way, saying that the hypothetical student should act differently depending on what reasons the classmate had for remaining at home. However, in the later half of the transcript above, the student stated that she would never promise to tell this kind of a lie. It would probably be a too rigid interpretation to conclude that it is certain that she considered there to be no exceptions to this rule merely because she used the word "never," but it is warranted to conclude that the student expressed a much less pragmatic way of behaving than what was the case at the beginning of the transcript. Then, given that the promise had already been made, the student returned to the pragmatic

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[119] I here ignore such things as consequentialising non-consequentialist moral theories (see e.g. Portmore, 2007), which is the idea that other moral theories can be translated or transformed into consequentialism, through accounting for each feature of that non-consequentialist theory in consequentialist terms or a consequentialist framework.

reasoning, stating that she would tell a lie if the conditions were of a certain kind. Hence, comparing the parts and the whole of the student's reasoning, we can see the student explicitly adhered to both pragmatic and non-pragmatic decision methods regarding the same hypothetical dilemma.[120]

Variety in rightness criterion dimension

In this section, some cases of variety in the reasoning in the rightness criterion dimension will be presented, starting with interpersonal variety, i.e. differences in moral reasoning between one student and another, and then moving on to intrapersonal variety, i.e. variations in moral reasoning expressed by one and the same student.

(iii) Interpersonal variety

The students emphasised duties as well as actual and hypothetical consequences as motives for their actions and decisions. Accordingly, it is reasonable to make the interpretation that different rightness criteria were being used as the grounds for different decision methods. The students also reasoned from diverse ethical perspectives as regards both different and the same situations. Hedonistic qualities, such as pleasure or happiness, were characterised as morally significant. Some students also pointed to the relevance of being true to oneself. Some justified their views of the moral status of some behaviour by referring to roles and to powers that one possesses when playing a certain role in a situation. Motives in terms of both egoistic and less narrow consequentialist reasoning were put forward, and duties, moral desert and rights were referred to as reasons for actions.

There are some clear examples of consequentialist rightness criteria being employed in the students' reasoning. For example, the following quote by a student arguing that the factory should be built seems to state that what makes an act good is the consequences it has, in this case more specifically that maximising the number of lives saved makes an act good:

> S: *[I]f it saves more lives than those who die, then it is only good.*

On the other hand, some students clearly rejected such a view:

> S: *I do not think one should build the factory. [That is,] unless the workers are people who volunteer to do it, knowing the conditions.*
> I: *Why do you think that?*
> S: *Because it is not, like … it is like murder, if you build a factory and know that it is dangerously toxic there and let people work there who do not know.*
> I: *Even though one can otherwise save more people?*
> S: *Yeah.*

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[120] It should be noted that there can be considered to be slight differences in the preconditions in these different cases of reasoning, or that the student is talking about slightly different actions in the different cases.

The above student states that the fact that building the factory would save more lives does not make it permissible, since doing so would violate the rights of those whose lives would be lost, as discussed above regarding this example. And other students gave similar reasoning:

> S: *[…] And then those who will actually die from the construction of this factory also think that it is okay that "if I die, others can live," because it is really not okay if they just suddenly die.*

Again, this student claims that it is not acceptable that people would die, hence reasoning in the rightness criterion dimension, and contradicting the above consequentialist reasoning.

To conclude, there was extensive interpersonal variety in the students' reasoning in the rightness criterion dimension. Again, regarding the criteria of rightness just as in the case of decision methods, the students emphasised central characteristics or important parts from several of the well-known theories from normative ethics.

(iv) Intrapersonal variety

Some intrapersonal variety of reasoning regarding rightness criteria was manifested in the combination of referring, on the one hand, to consequences of actions and, on the other, to duties, regarding the same hypothetical situation. Another example of specific intrapersonal variety is the following, in which one of the students argued that you should be fair[121] in school:

> I: *But why is it important to be fair in school?*
> S: *Well, it's not enjoyable to go to school if you get bullied all the time, is it?*
> I: *No.*
> S: *So if no one is fair in school, no one will come here, and then there wouldn't be much point in having a school.*
> I: *Mmm. OK! So it's for …*
> S: *(Interrupts) Well, it feels nicer if people are fair with each other. It kinda gets, if you, if you just say, "No, but I hate you," just like that, that person will be angry with you, and it gets like… It's not so much fun to have a group project with that person later on.*
> I: *No…*
> S: *No. And we do a lot of group projects.*

The student argued that the effects of certain behaviour in school are relevant for the moral status of that behaviour. More precisely, the importance of being "fair" towards peers was emphasised, since someone would get bullied otherwise. Moreover, the student valued having a nice time, and that being bullied would likely contribute to the opposite. It is not certain whether the student argued on egoistic, utilitarian, or altruistic grounds, for example, when stating the reason that it would not be very nice for the student or for a classmate to get bullied in school, but it is indeed more certain that some kind of consequentialist

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[121] The student used the Swedish word "schyst" ("sjyst"/"juste"), which is historically related to the English word "justice", and could translate to, for instance, "fair," "kind," "just," "honorable," "decent," "correct," and "irreproachable." It is used in such expressions as "fair play." Hence, in accordance with the choice we made in the article (Backman & Gardelli, 2015.) it is translated into "fair" in the rest of the text, in accordance with advice from a professional translator.

considerations motivated the student's previous position on fairness. In the first, third, and fourth reply quoted above, the student referred to actual consequences of bullying or acting unfair to each other.

However, in the second of the above quoted student replies, the position stated is another one. In that remark, the student made use of an argument similar to Kant's categorical imperative. If interpreted in accordance with Johnson (2004), the student could be understood as having first formulated the maxim, which is "not be fair in school," second recast this maxim as a universal law governing the universe of all the students in school, and third having considered whether the maxim is conceivable in the actual world. Given that no one would go to school if no one were fair in school and that it would not be conceivable to have a school without any students, the maxim would not make it through the third step. Hence, the negation of the maxim would become a perfect duty, according to this reasoning procedure. Indeed, it is not at all certain that the student went so far as to hold that it is under no circumstances whatsoever allowed to not be fair in school[122], or to explicitly spell out all the steps, but the student's argument certainly resembles this Kantian type of reasoning.

It could be objected that the student's reasoning in the second reply is rather based on standard consequentialist reasoning, on an evaluation of actual consequences. Indeed, it might be that the student considered it probable that, just because one person is unfair, everyone would actually become unfair, which in the long run would result in there being no students and no point in having a school at all. However, since most people (reasonably this particular student as well) have been the target of unfairness (or at least seen others being such a target) at some time and have seen that this has not resulted in the whole population becoming unfair, this interpretation is less promising.

The above comparison of the different parts of the student's reasoning leads to the more general interpretation that the student seems to have argued from actual consequences as well as hypothetical consequences after recasting a maxim as universal law. Both kinds of reasoning were utilised in regard to the same behaviour or character trait. To sum up, one reasonable interpretation of this is that the student adhered to different rightness criteria and applied them to the same decision method, in the same scenario.

Variety between decision method dimension and rightness criterion dimension

(v) Interpersonal variety

The existence of interpersonal variety between the two dimensions of moral reasoning can be inferred from the results presented above, and the content of it is suggested in (i) and (iii)

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[122] Indeed, it can be questioned if even a full-fledged duty ethicist would claim something that strong, since many proponents recognise the risk that duties come into conflict with each other (even though Kant himself might be understood as to reject the very possibility of this), and that at least one of them in such a case has to be jettisoned.

above.[123] Since there is at least one student that has displayed intrapersonal variety in each of the dimensions, whatever reasoning one of the other students would express, it would constitute an interpersonal variety with at least one of the forms of reasoning expressed by the first student. Since there are several students in the study, interpersonal variety between the dimensions exists. I will not go into further detail about its nature.

(vi) Intrapersonal variety

As noted in the previous sections, the variety in the students' reasoning in decision method dimension and rightness criterion dimension was quite significant. In line with those results, there were some examples of intrapersonal divergences between decision method and criterion of rightness in the students' reasoning. For instance, one student expressed allegiance to a virtuous decision method, while the criterion of rightness for that decision method was that it would yield positive consequences. A different and more extensive example is illustrated below. The student had just underlined the importance of being "kind" towards each other and described that one feature of being "kind" is not hitting your peers:

> I: *So what does it mean for you to be kind? In other words, is it something more than not hitting and things like that, or what?*
> S: *No, but mostly like helping each other, being a little generous, and things like that. Not being too egoistic, in other words only thinking of yourself.*
> I: *Mmm. Okay. Why shouldn't you be egoistic then, for example?*
> S: *Because, like it feels so strange to be with someone who is much too egoistic, like only thinking of himself. For example, if you play soccer, it's not much fun to play soccer with someone who is egoistic.*

The student indicated that if one has the character trait of being "kind" one is also not egoistic. This indicates that the student considered the concept of a non-egoistic character trait (or non-egoistic actions) to be part of the concept of kindness. In justifying the non-egoistic behaviour, the student referred to the consequences of being egoistic. In doing so, the student held the feelings of others if one were to be egoistic to be of importance to the moral status of the behaviour.

Later on during the interview, the same student considered the hypothetical dilemma regarding playing truant, and then held it implausible for the hypothetical student to make the promise to the classmate in the first place. The student was then asked for the justification for this position and answered as follows:

> S: *Because, like, I don't want to be involved in him skiving off, because if I tell the teacher that he, well, I just can't, if I promise him, and then I tell the teacher, it will just be worse for me.*

One plausible interpretation of this is that the student argued from egoistic motives, despite previously stating that one should not act egoistically. This seems intrapersonally complex as it

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[123] In fact, the existence of all forms of interpersonal variety can be inferred from the intrapersonal variety described above, in similar fashion as described in this section. The same does not hold for the richness of the interpersonal variety, though.

indicates a divergence between decision methods and criterion of rightness. That is, the student considered it morally correct to have one kind of rightness criterion – an egoistic principle determining the moral status of the action in question – and another kind of decision method – behaving kindly, which, according to the student, included behaving non-egoistically.

One interpretation is that the student considered it morally acceptable to have egoistic motives or rationales, as long as these motives do not show in interaction with other students, for instance during a soccer game. However, this might not be a completely satisfactory interpretation, since the hypothetical student in the dilemma would be interacting with a classmate and, as a result, out of egoistic motives, would not act to fulfil the classmate's preference of making and keeping the promise. The egoistic motives could thus show in such a situation as a consequence of the hypothetical student's action, which was justified by the interviewed student. Hence, in comparing and reintegrating parts and the whole of the student's reasoning, one could consider this interpretation to suffer from some disadvantages. Another, and maybe more promising interpretation, is that the student held it to be morally acceptable to act egoistically to some degree. This interpretation would then be warranted by the following parts of the student's first reply: "Not being too egoistic, in other words only thinking of yourself." And the second reply "… it feels so strange to be with someone who is much too egoistic, like only thinking of himself." In that case, the rightness criterion and decision method were still – to some degree, while not fully – divergent.

In summary, extensive variations in moral reasoning were found, both interpersonally and intrapersonally, both in the decision method and in the rightness criterion dimensions, as well as in between the dimensions.

Summary of the results

It has been found that in relation to ethics education, all the three approaches to ethics in school are prescribed throughout the curriculum. That is, in simplified terms, schools should make sure that students learn facts about other people's moral views and opinions, etc., and schools should make sure that students come to uphold certain predefined values, and schools should also teach students to think for themselves about ethics, to develop their ethical inquiry and reasoning skills, their critical thinking in ethics. Although these three roles are present throughout the curriculum, they are not given equal support. In the general section of the curriculum, value transmission and inquiry ethics are the most prominent approaches prescribed by the curriculum, but in the syllabi, the descriptive ethics and inquiry ethics approaches are more pronounced. In the subject of Technology, value transmission cannot be found at all.

In the case of the students' reasoning about technology choices, the students reasoned in accordance with several classical normative theories, including consequentialism, rights and duty based ethics and virtue ethics. In doing so, they expressed reasoning potentially in conflict with the values of the value foundation in the curriculum, as will be discussed below, also in relation to what this means for the value transmission approach.

Several students defended very restrictive views on disclosing personal information online, and it is interesting to discuss this in comparison with reported behaviour as well as in relation to the views on these matters normally held by adults, which will be returned to in the discussion section. Many of the students also claimed that adults defended these same restrictive views on sharing personal information online. Although several students defended the view that one ought to be very restrictive with posting information online, many of them also defended what can be seen as "private morals," moral relativism or a strong form of moral freedom, in that it is morally permissible to post however much one wants about oneself online – at least as long as this does not hurt other people. This possibly conflicts with the restrictive views described above, and this will be discussed below, also in relation to what this means for a value transmission approach.

Throughout the moral reasoning mentioned above, extensive variations in the students' reasoning were found, both interpersonally and intrapersonally, and both in the decision method and in the rightness criterion dimensions, as well as in between the dimensions. The resulting six forms of varieties are novel findings. Implications for both the value transmission approach and the inquiry ethics approach will be discussed below, and suggestions for future research will be given.

Discussion

In this final section, I will discuss each result in detail and thereafter the further implications of the results, thereby discussing some of the things the results give reason to believe (and some that they do not give reason to believe). In this, I will also evaluate to what degree the results constitute justification for some further beliefs and the limitations in such justificatory power. Finally, I will comparatively evaluate the merits and weaknesses of the approaches to ethics in school, and examine whether the present material gives reason to create a subject in Swedish schools dealing specifically with ethics.

Ethics in the curriculum

In this section, I will discuss whether or not the national curriculum is contradictory, and what consequences this might have and how we should approach such a fact, if it indeed is a fact. Indeed, one possible criticism of this thesis could be that I have drawn too strong a conclusion about the importance of the curriculum, and expect too much of it; that it is a political compromise, and as such, will always be contradictory and more of a paper product than having any major influence in the classroom, and that it should not be taken too strictly.[124] But there are objections to this picture. It does not necessarily follow that because something is the product of a democratic or political compromise, it will be contradictory. Neither does it follow that it is merely for show or that it should not be taken seriously. If anything, the contrary seems to follow. Regardless, I will argue against the reasonableness of contradictory policy documents below. And if this is accepted, I cannot see why documents stemming from political processes and compromises would have to be contradictory. Moreover, the claim that the curriculum is of no more than slight importance can be challenged, as well. The Swedish Education Act (2010:800 chapter 1 section 11, my informal translation) states that "The curriculum should state the value foundation and commission of the education. It should also state goals and guiding principles of the education." Hence, it is clearly given an important role by Swedish law. And it could be added that the creators of the curriculum, including the director-general of The Swedish National Agency for Education, are not at all of the view that the curriculum is of no importance to schools (cf. Lundgren, 1999). Lundgren and Söderberg (1999, p. 11) state that the "curriculum should govern school, and contains binding regulations for its operations." Perhaps most importantly, many of the teachers I discuss these matters with are not of the opinion that the curriculum is of only minor importance.[125] Regardless of how it was created, the national curriculum has a bearing on the everyday work in the Swedish classrooms, and hence, it is important to study it. Maybe also in the hope of contributing to its future development.

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[124] Indeed, this criticism has been voiced on several occasions.

[125] Perhaps it could be argued that it would be rational not to pay too much attention to a document such as the national curriculum, but even then it could not be denied that if teachers are indeed paying attention to it (may it be rational of them or not), it would still be of importance to study this document.

I will investigate and discuss two possible ways in which the curriculum could be contradictory with relation to ethics. The first possible contradiction stems from the inclusion of all the three approaches to ethics in school in the curriculum. The second possible contradiction is a value contradiction in the value foundation. I will start by discussing the first alleged contradiction. This will also shed some light upon the prior findings touched upon above, that inquiry ethics is so rarely found in school practice.

Consequences of the multi-perspective use of ethics in the curriculum

As we have seen (see "On the compatibility of the approaches"), the three approaches to ethics in school are indeed distinct, and moreover, there are strong reasons for believing that there is a problem of compatibility between them. In particular, it seems that there is a quite strong incompatibility, possibly a contradiction, between the value transmission approach and the inquiry ethics approach. This means that, insofar as one claims that schools should take one of the approaches to ethics in school, it cannot also take the other; at least not simultaneously and without a clear and explicit structure of their respective relations to each other. But if the value transmission approach is taken as strongly and seriously as many of the statements from the creators of the curriculum indicate that one should, there seems to be a conflict.

> School is not and cannot be value neutral. The curriculum states the inalienable values that everything in school must rest upon. These values cannot be negotiated away by any rational reasons. This means that these values always come first but also at the same time. (Hörnqvist & Lundgren, 1999, p. 11, my translation)

If the value transmission approach is understood in the sense that the values in the value transmission assignment must always guide action and they must always be the starting point and always be respected, in the sense that there is no possibility to step outside of the value transmission assignment (not even put it on hold for a minute), in the sense that everything must always be in accordance with the value transmission assignment, then it seems that the value transmission approach and the inquiry ethics approach cannot both be taken. Indeed, it can definitely be questioned whether it enough to make an inquiry ethics approach possible that one pauses (or puts on hold) the value transmission assignment, but it quite clearly seems as if it is impossible to implement an inquiry ethics approach if the value transmission approach is understood in the strong sense now under consideration. If the school must "constantly, always" (as the title of the report (Lundgren, 1999) says) act within the value transmission assignment in the sense that the foundational values can never be questioned, discussed or criticised, then it seems that the value transmission approach and the inquiry ethics approach indeed contradict each other.

One other possibility worth investigating, which might be a way of resolving this contradiction, is if a limited inquiry ethics approach could be taken, within the borders, or frames, set by the value transmission approach. To take an analogous example, moral rights

theories are sometimes seen as giving side restraints to what can be done, but within the limits given by the rights theory, either some further criteria or rules should be used, or you have moral freedom. Similarly, it could be argued that within the limits given by the value transmission approach, there could be some room for some limited inquiry ethics, in that space that is not governed by the values included in the value transmission assignment. How big that space would be differs, of course, depending on what values are included in the value transmission assignment. However, it could be argued whether any such side constraints are compatible with views on what true dialogue and true inquiry demands, as understood by e.g. Bakhtin, Lipman or Dewey. A further investigation of this in detail would be needed, but initially, it seems that the prospects are slim. The very act of drawing up the territory, and delineating what is within the limits set by the side constraints, and hence, what can be discussed and what cannot, is what for Bakhtin would be seen as monological, a claim to have the "ready-made truth," instead of a (joint) seeking of truth. And for Dewey, I think, it is essential to the third order of moral reasoning that it supersedes or overrides the customary thinking, and hence cannot be limited by it. And Hare would say the same.[126]

In the results section, it was shown that all through the section named "the fundamental values and tasks of the school," the overall goals and guidelines, and in the syllabi for the different subjects, the three different approaches to ethics are all, to varying degrees, mixed and alternated. All of them are prescribed by the national curriculum. Hence, when school concerns ethics, there are at least three different things that should be dealt with accordingly. This means, as we have seen, that there are three different sets of aims, three different sets of activities, and three different types of content for both the students and the teachers to deal with. This situation, the different ways in which the curriculum stipulates that ethics should be part of education, not least in the subject of Technology, would have been complex enough for teachers to handle even if it would have been completely clear and explicit that this was the situation. As we have seen, though, that is not the case, which only makes things even more complex and difficult.

The fact that the changes in perspectives and approaches, let alone the approaches themselves, are not explicit in the curriculum has a risk of even worsening the problems of the multi-approach approach. Even if the different approaches turn out to be compatible, they are still very different, and reasonably often would demand quite different ways of acting from both students and teachers. It is interesting to note that prior studies have found that inquiry ethics is very rarely implemented in the classroom. This could seem to be surprising, but is less surprising given what has been discussed here about the incompatibility of the approaches. And it gives further reason for the importance of investigating which of the approaches has most speaking in favour of it.

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[126] One further reason for the implausibility of a limited inquiry ethics is the following. In learning inquiry ethics (pace Dewey), one prominent kind of reasoning employed by the students would reasonably be to try and find general theories regarding how to answer moral questions and deal with moral problems. Indeed, such an approach has been favoured by most moral philosophers, with some notable exceptions such as Dewey and the moral particularists. And indeed, the students in this study show tendencies toward this, as we have seen, and similar findings have been suggested by prior research. But it seems that the possibility of such reasoning within a limited inquiry ethics is slim, since the values of any value foundation would reasonably conflict with most such theories. Value foundations typically include some elements of several kinds of ethical theories, and as such, easily conflict with several of the theories in their general forms. Indeed, such findings are discussed below. Hence, it seems that a limited inquiry ethics approach is indeed most likely very limited, possibly beyond recognition.

Part of the solution to the problems raised here might be to make the different approaches to ethics explicit in the curriculum, in accordance with how they have been described above. One way of achieving this could be by dividing the different approaches to ethics into different subjects in school. Knowing explicitly that "this is the time for this, and that is the time for that" might make it easier for both teachers and students in coping with the changing of roles and what follows with those changes. Another important course of action is to more clearly distinguish between the different approaches in the contexts where they now reside within the curriculum. Hopefully, this thesis can be of use in such an undertaking.

Reasonably, changes would also have to be made in teacher education, and some kind of education or educational material could be provided to teachers currently working in the educational system. If the national curriculum is not changed, teachers must be given training and tools to deal with these problematic situations in as good a way as possible. And if the curriculum is indeed updated, the information and training for teachers should also be updated accordingly.

But again, this all rests upon the assumption that it is even possible to include all these approaches to ethics in school, and give them the same priority; i.e., it is dependent upon the assumption that they are compatible, that it is not the case that doing ethics in one of the senses would require not doing it in one of the other senses. But to the extent that there actually is a contradiction in the curriculum, we have a significant problem at hand. And, indeed, it seems we have. I will discuss it more below.

Problems of interpretation

As became quite evident in the presentation of the results relating to the curriculum, working out one clear interpretation of a certain expression, which is more reasonable than other rival interpretations, is quite a difficult task. In many cases, I could not accomplish that task to a satisfactory degree, but had to settle with a question mark relating to what interpretation was the better one (even though I spent considerable time on the task, quite a lot more time than I think that the normal teacher can afford to spend on reading the curriculum at all, if she is to avoid working excessive overtime). In relation to this, it should also be noted that I have quite an extensive experience in teaching ethics, and hence am very used to interpreting different ethical claims with regard to ethical theories. Nonetheless, in several cases, my interpretations could certainly be challenged, and in even more cases, more than one interpretation was indeed possible (even though I in those cases considered it quite clear that one candidate was better than the other(s)). I take it that this means that there are serious reasons to believe that making such an interpretation might be too difficult to be done by teachers (and others) in ordinary school practice. Whether that is the case or not would be interesting to see investigated through further research, specifically examining school practice. Indeed, some studies show that implementing ethical prescriptions from the curriculum is a difficult task in school practice, maybe too difficult to be accomplished (Norberg, 2004).

But these prior results are not connected to the difficulties of interpretations regarding the different approaches, found in this study. I consider it interesting to find that these difficulties of interpretation emerge. And there is a need to make *some* interpretation in each school

setting, since ambiguities cannot easily guide actions in practice. When approaching the text from a theoretical standpoint, it is possible to decide to ask another question, leaving the question of how to interpret a certain statement unanswered, or settle with noting that a case is unclear, or that there are ambiguities in the text, and so forth. Indeed, it is common with texts being unclear, or even contradictory, in these matters, as we shall see below, and this is problematic for school practice. That is because teachers, as we have seen, cannot afford to be as vague or incompatible as documents might.[127] From a practical point of view, at the end of the day, something will have happened in the class, one thing or the other will have been done. A teacher has to do something in his or her practice, a teacher has to go down one path or the other, and discard the rest. It is not possible to do incompatible things (while it seems possible to write them).[128] But will the different teachers, head teachers and schools make similar interpretations? Or will one school (or teacher) only or mostly focus on e.g. value transmission, while another one focuses on inquiry ethics? That particular question is best answered by further research. And it seems important that these questions are answered. Too big a disparity in these regards might go against an important principle: "The Education Act stipulates that the education provided in each school form and in the leisure centre should be equivalent, regardless of where in the country it is provided" (p. 10). And while there might always be things that teachers do differently, some things are important enough that too big a difference can be considered problematic. Indeed, it seems that which of the above discussed approaches to ethics education is taken is such an important topic, on which there might need to exist some common ground. Hence, the existence of the interpretational differences is problematic in itself.

Interpretational problems relating to discerning which of the approaches to ethics here described is intended on a specific occasion is not a problem that is unique to the curriculum. When reading many prior texts, from researchers as well as policy document authors and The Swedish National Agency for Education, as we have seen some examples of above, it is oftentimes quite unclear how these texts relate to the distinction between value transmission and inquiry ethics.[129] Indeed, it many times seems difficult, if not impossible, to find a coherent interpretation, because the two approaches seem to be mixed up, confused with each other, or proposed at the same time. We have seen plenty of examples of this in the background, one being the following quotes given by Lundgren, who seems to prescribe both value transmission and inquiry ethics in the same sentence: "School has, in addition to the by tradition given role of laying the foundation for the conventional morality in the students, also an important task in developing the students' ability to reflect upon

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[127] While texts might be inconsistent, they ought not to be.

[128] I do not think that even Priest (see e.g. 1997; 1998; 2014) would object, even though he claims that some contradictions are in fact true. Most philosophers, like Aristotle and Leibniz – to name but a few classical thinkers – have considered the principle of non-contradiction the most important, most fundamental and most reasonable principle there is (Priest, 2016), as a necessary means for any thinking (Horn, 2014), and indeed it is the foundation of classical logic, hence also classical science. There are some interpretations of contemporary physics which claim that it would contradict this principle (how is that relevant, if contradiction is not a problem?), but I will not deal any more with those interpretations here.

[129] One of the few exceptions that I am aware of is the doctoral thesis by Wyndhamn (2013), who, as noted above, draws a distinction between two approaches to ethics found in the upper secondary school, which seems to correspond quite well to a value transmission and an inquiry ethics approach, respectively.

morality" (Lundgren & Söderberg, 1999, p. 27, my translation). Is this supposed to be an endorsement of both of these approaches at the same time, and if they conflict with each other, what then is the ethics commission of the school? The difficulties in interpreting this also stem from the fact that Lundgren has also endorsed both approaches in other places, for example defending value transmission in stating that: "An important task for [the school] is to lay the foundation for and firmly establish the values that our societal life rests upon" (Lundgren, 1999, p. 1, my translation), and that:

> School is not and cannot be value neutral. The curriculum states the inalienable values that everything in school must rest upon. These values cannot be negotiated away by any rational reasons. This means that these values always come first but also at the same time. (Hörnqvist & Lundgren, 1999, p. 11, my translation)

It is therefore quite clear that Lundgren has defended the view that school should carry out straightforward value transmission. But he has also defended the contrary position that school should not be doing value transmission. Together with Söderberg, he claims that school should perform value transmission, but also that "[s]chool has, in addition to the by tradition given role of laying the foundation for the conventional morality in the students, also an important task in developing the students' ability to reflect upon morality" (Lundgren & Söderberg, 1999, p. 27, my translation). In the same publication, they clarify the latter part of that sentence:

> [t]he most important contribution of the school ought then to be to give the students access to language and thereby possibilities and stimulation to thinking, i.e. a development of the moral compass. It is, however, not the task of the school to force particular views upon the students. (Lundgren & Söderberg, 1999, p. 72, my translation)

This latter statement is clearly an endorsement of inquiry ethics, indeed (through the second sentence) one that seems to be so strong that it explicitly contradicts value transmission.[130] (Whether value transmission and inquiry ethics are contradictory or not, it seems that at least not every endorsement of one or the other of them is an obvious and explicit contradiction of the other, the above being an exception, and those endorsements that clearly oppose one of the other approaches are indeed clear and strong endorsements.) Value transmission consists of having a set of predefined values that school has the irrevocable mission to make sure that

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[130] The only way in which I can see that it should be taken not to contradict value transmission is by focusing on the word "coerce" ("tvinga," which could also be translated as "force"), and say that while school should not coerce students into accepting certain moral views, it is sufficient for value transmission to accept that school for example tricks or deceives students into accepting certain values, or to indoctrinate or brainwash them into holding certain views. But I do not think that the point of this quote is to distinguish between such different ways of making sure that students come to have certain values. It seems like it is not needed to state something like that, since anybody would agree that school should not force students to uphold certain values, in the sense of "force" that differs from trying to make sure, indoctrinating, and so on. (Indeed, some authors claim that all ways of making students come to accept some predefined values, even if it is by personal example, is indoctrination (Sher & Bennett, 1982)) It seems unlikely that what the authors are saying is that such a strong kind of forcing is not the aim of school, since that need not be discussed. Instead, it seems that the statement should be taken to be a stronger claim, the claim that it should be open for the students to accept different moral values, that school should not beforehand decide what things the students must come to include in their value system. That school should perform no indoctrination. And this is not compatible with value transmission. This is also justified since they use the phrase "particular views" ("bestämda uppfattningar"), and also by other features of the context of the statement.

every student comes to accept, and hence the task of the school is precisely to "force" the students to uphold certain moral opinions, in this case namely those that are considered to be the conventional morality, those found in the value foundation. This contradiction is not acknowledged or elaborated by the authors, though. This is one example of these positions being quite commonly mixed up in the research literature, which is problematic, to say the least.

Let us now briefly turn to the other possible source of contradiction in the curriculum, the values of the value foundation. If the values included in the value foundation are found to be incompatible with each other, this would also be a form of contradiction in the curriculum. This contradiction would also be troubling for teachers' work, as discussed above, but such a contradiction would still be problematic only for the value transmission approach, and only problematic for school practice insofar as, and to the extent that, a value transmission approach is taken. Is there a contradiction of this sort in the Swedish national curriculum? I will turn to that question below.

It seems reasonable, in light of the above discussion, to claim that the ambiguities, or inconsistencies, that exist in the curriculum have practical consequences in school. Either in that this confusion is transferred to the teachers as well, or that they have to do something that goes against either of the directives that can be found in the curriculum – or even worse, both.

Students' reasoning about technology choices, and the values in the curriculum

In this section, the relation between the students' moral reasoning about technology choices will be compared with the values of the value foundation, and their relations will be discussed. As we will see below, students to quite a considerable degree in their reasoning gave voice to values and ways of reasoning that seem to be in disparity with, or even contradiction with, the foundational values of the educational system. Although these results are far-reaching, similar results have been reported before. One example is the findings by Norberg (2006), who studied what values that implicitly arose in educational settings, and argued that some of these contradicted the values of the value foundation. But it should be noted that her study uses a different setup and method, since she studied values that were implicit in actions, while I instead have studied what values students explicitly give voice to, what values are expressed in their moral reasoning. Hence, the studies complement each other, as will be discussed more below. But first, in the following, I will discuss the results in comparison with the values of the value foundation.

A comparison

One student, as we have seen above, seemed to reason based on the Kantian principle to never treat anyone purely as a means, but always as an end in itself. This principle, as stated

above, is used by Nozick to ground his rights based ethical theory. A very similar idea in fact seems to be encouraged by the curriculum, since it is stated that "[e]ducation should impart and establish respect for human rights" (Swedish National Agency for Education, 2011a, p. 9).[131] It seems that if this principle from the Swedish curriculum is applied on the same case as the student was reasoning about, the conclusion would be something similar to that of the student in question.

On the other hand, one student gives a reasoning that ends with the following statement:

> S: *Because those who live nearby, they can move. And if [the number of lives that] it saves [is] more than [the number of people] who die, then it is just good.*

In the results section, it was concluded that this should be seen as an expression of some form of utilitarianism, at least some version of consequentialism. It seems that this reasoning is in conflict with the interpretation discussed above, that people have fundamental human rights, and therefore cannot be "traded" for other people. In this respect, it seems that the students' reasoning is in conflict with the value foundation.

Moreover, it is interesting to discuss this reasoning in relation to the idea that all humans have equal value (found in the value foundation, as we have seen). One way of understanding this idea is that each human being has some quantity of value, say x, which can be aggregated in the way that a group of y people would have the sum total value of $y \cdot x$. Hence, a larger group has more value than a smaller group (by simple addition), and therefore a larger group should be saved, even if it has to be done at the expense of a smaller group, in the way that the student above argues. If a utilitarian were to interpret the phrase "all humans have equal value," such an interpretation might be one candidate.[132] This would make the student's reasoning cohere with the curriculum. But this interpretation would not be the standard understanding of the phrase "all humans have equal value." Indeed, it has commonly been asserted as an argument against utilitarianism that it cannot give justice to ideas such as the value of people, since utilitarianism seems to value a person only as a container of something valuable; happiness, for hedonistic utilitarians (Tännsjö, 1998).

A more standard interpretation of the idea that all humans have equal value would be that all humans have some intrinsic value, such as some fundamental rights, and that all have the same value in this sense. This corresponds well to the fact that the curriculum states that human life is inviolable. How is that to be interpreted? One interpretation is that no human life ever can be used to produce some good for another person. This would correspond well to Kant's principle never to treat another person only as a means, defended by Nozick, and the rights theory that Nozick defends, as we have seen. The moral rights-interpretation of this

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[131] Although it should be noted that what is normally meant by "human rights" goes well beyond what Nozick would have accepted. Indeed, such collections of alleged human rights normally include positive rights, and not only negative rights, a move Nozick would not have accepted as reasonable, since he would argue that positive rights conflict with negative rights. See Nozick (1974).

[132] But a more likely candidate for a utilitarian interpretation would be something like that each person's happiness and suffering counts just as much as everybody else's – that if two persons have exactly the same level of happiness, these things are just as good. This means that if a utilitarian could choose to give a fixed amount of happiness to one person, or exactly the same to another, neither would be better than the other, ceteris paribus. Some utilitarians, though, would claim that it is better that someone whose life is worse off gets the amount, ceteris paribus.

passage from the curriculum corresponds well with the fact that the curriculum explicitly states that human rights should be respected (Swedish National Agency for Education, 2011a). The reasoning by the student above seems to contradict both these principles.

Another student considered it to be of relevance whether or not those people that would lose their lives would consent to this, that is, if they were ready to sacrifice their own lives in order to save the greater number. It is interesting to compare this idea with the idea discussed above, because for Nozick and several other ethicists accepting Kant's principle (or some similar idea), whether or not something is voluntary or not is of great significance. Thus, it is often argued that it is not acceptable to use someone's labour, for example, for the benefit of someone else, unless this first person voluntarily agrees that this shall happen. If a person does agree to such treatment, then it might be morally permissible to use someone's life in order to save someone else, for such rights-based theorists. This is important because it goes to show that it is not necessarily in violation of the value foundation to state that the factory should be built, nor to say that some people have to be prioritised over others, but one way of making such a move justifiable within the framework of accepting moral rights is to demand consent.

The same instance of reasoning also touches upon the idea that whether or not it is reasonable to build the factory does not simply depend on the quantity of lives saved, but also *which* lives are saved, an idea found in several students' reasoning. They seemed to consider it important to find out whether the lives at stake are the lives of young people, with much time ahead of them, or if it is the lives of older people, who might not have that much time ahead of them in the first place:

> S: Yes [we should build the factory], but then one should not have taken just anybody to work there, but someone who like, maybe was very old, or something, but could still work.

Some considered age to be of importance, others mentioned that people in jail should be used to build the factory. It is thus rather clear that some of the students uphold the idea that lives are different in terms of save-worthiness, i.e. how reasonable or important it is to save them or keep them alive. Young, healthy and innocent people are by many students stated as more save-worthy than people who are very old, sick or sentenced to jail. This seems to be in contradiction of the statement in the curriculum that "[n]o one should be subjected to discrimination on the grounds of […] age or functional impairment" (Swedish National Agency for Education, 2011a, p. 9). Moreover, it is again interesting to compare it to the idea of the equal value of all people.

> S: If one lets such people that would otherwise be in jail all their life work in the factory. Yes, then it would be okay. […] Or, well nobody ought to die, but people die anyway. So, I don't know. Yees… But, no I have no other [suggestion]…

The last expression is interpreted as meaning that the student does not have any suggestion that she thinks is better than suggesting the building of the factory, after all, reasonably using prison inmates as the workforce. The reasoning seems to contradict the idea that all people

are equal in value, which is clearly stated in the curriculum (Swedish National Agency for Education, 2011a).

To conclude, the results here discussed may be of importance in many ways, some of which I will turn to below. But one of the most central arguments that can be based upon these results is the claim that not all students in Swedish school reason in accordance with the values of the curriculum of the Swedish educational system. The further consequences and implications of this will be further discussed below.

It could be noted here that these results are based on data concerning students in year six of the compulsory school. So, one could take it that the students had until year nine to come to other conclusions, more in line with the values of the value foundation. But a few things should be said here: first of all, value transmission, which is quite dependent on authority and some kind of indoctrination or similar reasonably works better on younger students than older. Hence, it is important for school to have come pretty far in this work by the time the students are in year six. But secondly, and more important, the findings of the inter- and intrapersonal varieties discussed above also concern students in the last year of compulsory school, and the found interpersonal variety, which is as strong as interpersonal contradiction, speaks in favour of the view that the situation does not change in the last three years of compulsory school. Nonetheless, it is worth briefly noting (although these matters will be returned to below) that it would indeed be very important and interesting with further studies into this, both concerning if the situation is similar with regard to students in year nine, but also in larger scale studies, first to test if the hypothesis generated in this small sample study is reasonable, but secondly, to study the frequency of such conflicts between students' reasoning and the values foundation: how common is this conflict of values in the Swedish school? This cannot be answered by the present study.

Consequences for the value transmission approach

The fact that the results of this study include the finding that there are reasons to believe that students in Swedish school reason in contradiction of the values of the value foundation may come as no surprise to some. For example, Colnerud & Thornberg (2003), who note that there is a value pluralism in the sense that not everybody accepts the values of the value foundation, would probably not be surprised that these also include some students in school. But, nonetheless, it is a quite important finding, for a number of reasons.

First, the fact that a society has a value pluralism, in the sense that not everybody can accept any given set of values proposed for inclusion in a value foundation does not by itself imply that it is impossible for schools to successfully implement a value transmission approach. Indeed, it might be that the value pluralism depends on the fact that not everybody in that society has been to school in that society, at least not in a school that upheld that particular value foundation. Even though Hörnqvist and Lundgren (1999) claim that the values in the value foundation are not new, it is indeed interesting to note that they were explicated first in the 1994 version of the national curriculum. The curricula before that did

not include the value foundation in the way that the most recent national curriculum does. Second, some people might not have gone to school at all in the particular society in question. Hence, it is interesting to study whether school in fact succeeds in making all their students come to accept the value foundation, regardless of its acceptance rate in society at large. And it seems that it is at least initially an open question whether it has, will and can succeed.

Secondly, the results are interesting because they question the success of the value transmission approach in Swedish schools. It is quite clear that the school has a value transmission assignment, as we have seen above. And it seems that the school does not succeed in fulfilling its aims. This also casts a doubt on the prospects of ever succeeding with such an undertaking, but it in no means conclusively settles the issue. In trying to evaluate to what extent such findings (if they are indeed correct, and in correspondence with the situation at large, outside of the schools from which students participated in this study) speak against a value transmission approach in principle, one thing of importance is to try and explain the results. Below, I will discuss and criticise one such alleged explanation in more detail, but a few other possible explanations can be mentioned briefly. It could be that the students reasoned in discordance with the value foundation because the latter is inconsistent, as we have discussed above. I will return to this possibility below. Another possible explanation is that the fact that both a value transmission approach and an inquiry ethics approach are prescribed by the curriculum directly makes reaching the goals of the value transmission approach unattainable. Or, at least, it could be that since there are interpretational problems and problems regarding how to combine these approaches in school practice, teachers are hindered in working with any one of the approaches to the extent that would be needed to reach the goals. As we have seen, there are some reasons to believe that such a picture would not be entirely inaccurate.

At least until a reasonable explanation of the conflict between students' moral reasoning and the value foundation can be given, the fact that it seems as if such a conflict seems to exist casts doubts on the value transmission approach. First, if it does not succeed anyway, why take it? There is always a shortage of time and resources in school, and other activities could be prioritised, and if some project does not turn out to give the results that it is intended to produce, there is a reason to stop that project. Moreover, as we have seen, there is a problematic tension between the value transmission approach and the inquiry ethics approach, and to the extent that there are reasons for taking the inquiry ethics approach, there are then reasons not to take the value transmission approach.

General explanation in social–cognitive domain theory

Proponents of the *social-cognitive domain theory* could argue that since the social world is complex, and therefore also experienced as complex, it is no wonder that the students' reasoning is in conflict with the curriculum (if we assume that these results actually show that they are). I will now address the question whether this objection renders my results irrelevant.

I will argue that it does not, on the contrary, I will later argue that the results of this thesis cast some doubt on social-cognitive domain theory.

Let us, for the sake of the argument, accept the above explanation given by social-cognitive domain theory, and let us assume that the present study in fact shows that there is a conflict between the students' reasoning and the curriculum. Even if we accept the social-cognitive domain theory explanation, there is still a problem, since the curriculum states that the students should not reason in that way. The curriculum does not say that the students should not reason in such a way, unless there are reasonable explanations for why they do. The curriculum states that the aim of school is to make sure they don't. End of story. Hence, the proposed social-cognitive domain theoretical explanation seems to be irrelevant in this regard. It is, of course, still interesting for other reasons to gain an understanding of why such a conflict might occur. And indeed, if the social-cognitive domain theoretical explanation is reasonable in general, it would constitute further reasons to believe that the results described above are indeed valid. But there are problems with the proposed social-cognitive domain theoretical explanations, as we shall see.

It seems that in response to the above, the proponent of the social-cognitive domain theory must reject the aim of the curriculum to have such value transmission.[133] That is, the proponent of social-cognitive domain theory (if she would like to hold on to the social-cognitive domain theoretical explanation discussed above) would need to reject such imperatives in the curriculum as "Education should impart and establish [insert some values]," or "each and everyone working in the school should encourage [insert some values]," or "[Insert some values] are the values that the school should represent and impart."[134] She could say that since studies have shown there to be conflicts, a project such as the one undertaken by the curriculum is deemed to be incomplete. And, even granted that such conflicts have always arisen before, it can still be said that future pedagogical efforts might be successful. But, if the argument from the proponents of social-cognitive domain theory is accepted, there at least seems to be a problem with the present situation. Before I can say anything more about the social-cognitive domain theoretical explanations, I must turn to the varieties in students' moral reasoning. Before that, though, I will turn to students' reasoning about how to act on the Internet.

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[133] At least understood in the strict sense here discussed, while it might be possible to see the value transmission as an aim, although not an obligatory one.

[134] These sentence schemata were obtained by taking some adjacent sentences from the curriculum and replacing the enumeration of some specific values with these "[insert some values]" boxes, to put focus on the type of imperatives, and not the specific values chosen. Because it is not that the proponent of social-cognitive domain theory has to abandon some certain values, but rather all kinds of values she sees it reasonable for students not to adhere to due to the complexity of states.

Students' reasoning about what to share online

In this section, I will discuss the results concerning students' reasoning about online behaviour, and some of the consequences and implications of these results. First, I will discuss my results in relation to prior findings, both regarding students' online behaviour and regarding adults' views and opinions regarding how the students ought to act online.

Students' reasoning from the perspective of research on youths' online behaviour

As we have seen, one of the most prominent positions regarding Internet ethics expressed by the students was that one should be very careful regarding what information one posts online, to the extent that one should not provide one's name, address, telephone number or much personal information at all. Indeed, many of the students seemed to be of the position that you should post almost nothing about yourself online. And most also held the view that one should post almost nothing about other people online.

In the results concerning students' reasoning about their online behaviour, it was found that the interviewed students, to quite a large extent, gave voice to reasoning similar to reasoning that prior research has shown to be typical among grown-ups, and that grown-ups have been shown to wish to mediate to young people. Some of the students gave reasons for why one should not post personal information online, and most of them then cited fear of adults with bad intentions, such as stalkers. As has been pointed out in previous research (Dunkels, 2008; Finkelhor, 2014), this is typically a sign of influence from adults, since this is one of the fears of adults. Moreover, Dunkels (2007) has found that young people themselves do not feel or perceive these same fears as adults oftentimes do. Similar findings have been presented in other research as well. But as we have seen, there are also examples of studies that have found that students do perceive such fears, so the picture is not uniform and simple. For example, Livingstone et al. (2014) reported that the concerns voiced by parents were echoed by children.

Hence, there are reasons to believe that the students reasoning is the result of an implementation of a value transmission approach. Another possibility is that the students have in fact been convinced of the reasonableness of the views they give voice to. But the second explanation is less reasonable, due to the fact that many studies have found that students in general do not act in accordance with these principles (as we will see below), and it is not reasonable to believe that the students in this study differed radically from what is typical.

As briefly noted above, some studies have found that many students do not act in accordance with such fears, anyway. In fact, most of the young persons studied post personal information online, according to many studies. Interestingly, then, much of what they claim that one ought to do stands in stark contrast to behaviour that prior research has found that young people in fact exhibit. It seems that the students say that one ought to do one thing,

while they in fact reasonably do another. Such a finding might, on the face of it, be a bit surprising. But it is fairly common to speak of a value-action gap (also known as the "theory-action gap" and "weakness of the will"), the idea being that we do not always act in accordance with our moral beliefs and convictions (Blake, 1999; Chaplin & Wyton, 2014; Chung & Leung, 2007) – an idea discussed since at least Plato (Kretz, 2012). Nonetheless, such an idea is not uncontroversial. And it is typically needed to give an explanation of what causes us to diverge from our stated moral convictions (cf. Chung & Leung, 2007). But it should be noted that in the present case, there is stark contrast in that most of the students quite strongly claim that one should not act in a way that, on the other hand, a majority of them do anyway. In such a case, it can be questioned if it is actually a value-action-gap, or if it rather is the case that the students claim adherence to values and principles they in fact do not believe in or uphold. It is possible that this difference between voiced rules of conduct and actual behaviour has to do with the existence of value transmission. It seems likely that grown-ups have told these young people what they perceive to be the right thing to do online, but that these rules and ideas are not in accordance with the behaviour that the youths really feel is the correct one. Hence, they have learned that one has to say that the values one has been taught to accept are the correct ones, but that does not mean that one really has to believe in them, and hence one does not need to act in accordance with them.

But then we need to ask, are the findings of the prior studies in conflict with the results of this thesis? At first, it might seem as they are, because in my interviews, many of the students (as we have seen above) reason in ways that are in harmony with the reasoning from the adults. Nonetheless, I would say that the present results do not conflict with such prior studies, since we have studied, and hence make claims about, different things. Most of those studies mentioned above regard how students feel and act – how they in fact live their lives and what they in fact do, and what feelings they have in relation to these behaviours. But I did not ask the students in my interviews how *they acted* online, or what *they perceived* to be threats online. Instead I invited them to give their *reasoning* about how one *ought* to act online, and that is another thing from how they in fact act or what they feel is threatening for themselves.[135]

At this point, one might think that what I asked the students about comes down to, is the same as, or is synonymous with the question of what grown-ups think about these matters, and hence that it is no surprise that their reasoning closely resembled the reasoning of grown-ups. If that was the case, several of the conclusions I here discuss would be unwarranted. But I believe that this is not the case. The questions I invited the students to discuss and share their thinking about were about what it is right to do (or what one ought to do, or what one should do, if one prefers one of those ways of formulating the question (cf. Hare, 1981)). And that is only synonymous to what grown-ups think if what grown-ups think is always right.[136] But it is not reasonable to assume that the students conceived of the question in that fashion. First of all, not all grown-ups say the same thing. Second, several

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[135] Although, as we have seen above, some students did make references to themselves and their behaviours and fears (or lack thereof) in answering the questions – but far from everyone did, which supports the idea that they, at least implicitly, understood the differences between these questions.

[136] I cannot think of any scholar who would defend such a position. Indeed, I do not think that the students would have defended it either, although some of them, as we shall see, gave some tendencies towards that.

students, in their answers to my questions, explicitly said that they did not think that the grown-ups were right in their reasoning, although some students on the contrary said that they agreed with the grown-ups. And third, at the end of the interview, I oftentimes asked the students about what they perceived the grown-ups' views to be. And none of them said, "I already told you," or "That is the same question as asking what is right," or "What do you mean?," or "Why do you ask that again?" or anything of that sort.[137] Quite the opposite, some stated something else as being grown-ups' views on what one ought to do rather than what they had said that they thought that one should do.

Hence, it is reasonable to assume that they understood the difference between the questions "What ought one to do?" and "What do grown-ups say that one ought to do?" That is, I do not think that they perceived this to be the same question; they did not interpret the questions as being synonymous. Nonetheless, their reasoning closely resembled the reasoning of adults, and many of the students stated the views of adults to be close to the views they had, themselves, expressed – but they did not seem to consider it to be a matter of synonymity.[138]

Hence, it is reasonable to say that the students in this study, in their answers to the question "What do you think that one should do?", report answers very similar to what previous research has found that grown-ups say that the young people should do (but not very similar to what the young people in fact do (in as far as previous research shows it)). Furthermore, what the students reported that grown-ups say that one should do, was very similar to what many of the students, in their own reasoning, answered that they considered it right to do. On the other hand, as we have seen, several of the students themselves report problems with these principles. They seem to, as they reason themselves, find counter-arguments to the principles. And several of them had difficulties giving reasons for the principles in the first place.

From the discussion in the section above, with abductive reasoning, we seem to be justified in believing that the picture that has emerged is a consequence of a value transmission from school (and probably also from other grown-ups in the students' surroundings, such as parents or guardians). In short, this seems reasonable because 1) several of the students express similar principles, that 2) they have some trouble giving good support and arguments in favour of, and that 3) does not seem very reasonable (as some of the students themselves point out) and, moreover, that 4) is not in accordance with how research has found that people of their age tend to behave in situations like those discussed, but which 5) several of the students explicitly state that they know that grown-ups usually consider to be reasonable principles, and 6) that prior research has also shown adults to want to mediate to young people. Moreover, there are quite strong reasons, as has been shown in the thesis, to believe that value transmission is taking place, since this approach has a strong presence in the

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[137] And I believe that if I had first asked the question "What should you do?" and then, after hearing their answer would have asked "What ought you to do?" and then "What is the right thing to do?," then they would have been puzzled and asked me what I meant or why I asked that again, or said that they already told me, or something of that sort, because these are indeed basically the same question in different formulations.

[138] But, it should be noted that, had the students (and some might indeed have, although they did not say that to me) perceived the expressions "morally right" and "viewed as morally right by adults" as being synonymous, or if they thought that grown-ups were always right, then this would reasonably have constituted an even stronger argument in support of my conclusion that the effects or consequences of value transmission were visible in my material.

curriculum. This all gives fairly strong reasons for believing that some value transmission is occurring. Such an explanation would indeed make the findings much less surprising, and abductive reasoning therefore gives us reason to believe in such an explanation. Furthermore, this theory would explain further pieces of the data, which would seem very likely given the theory, but quite surprising otherwise. The students could give fairly precise and concrete answers to how to behave, but many of them had difficulties justifying their stated positions. Several of the students had troubles defending, or giving arguments in favour of, the views of the adults.

And it should be remembered that it is likely that in what they say to an adult who, even though I tried not to be perceived as a teacher, would most likely be perceived as some kind of authority, they would lean more towards accepting the views of adults than they might when speaking to peers or when acting by themselves. It is widely believed by researchers that students have a tendency to answer in ways that they believe that authorities want them to, as we have seen above. And in some of the interviews, it can be noted that while the student is reasoning and speaking, she drifts away from the views of the adults, but when I as the interviewer ask for a summary, just to be sure that I understood the student correctly, she seemed to pull back on the criticism – now maybe accepting the view of the adults after all – just to, a few moments later, again come to the conclusion that the adults might be wrong in their views. This speaks in favour of the above interpretation that such "shifts" of opinion might be present, although they seem to be quite small. All this suggests that the principles were not deeply rooted in their value systems, such as if they had come to think that way themselves by reasoning about these questions and thinking about how to behave.[139]

In retrospect, there are some questions I wish I would have asked more, in the interviews. Before the interviews took place, I did not imagine that these were to be part of the results I would obtain from the interviews. And as they took place, I did not see these things as clearly as I have come to after working a lot with interpreting them (that is not to say that I see them clearly now, but at least I think I see them more clearly now). If I had understood these matters the way I now do, I would have asked them more about these relationships, and tried to get some further insight into how their reasoning was related to the views of the adults. But I can at least hope that some future research can be influenced by this, and ask those questions I at the time did not see the importance of.

Moral freedom and online information sharing

One of the results in this thesis was that many of the students claimed that one should not post information about oneself online, and this is quite a strong, and somewhat controversial, moral principle, as discussed above. But moreover, many of the students also defended some kind of private morals or moral relativism or some other kind of strong moral freedom (cf. Lundgren & Söderberg, 1999). By this, I mean that they defended some kind of view according to which the strong principle about not posting personal information was not universally binding, but rather that it was up to each and everyone him- or herself to decide

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[139] It could also be that these principles were axiomatic, but this is quite unlikely.

how it is correct to act. They stated such things as that whether or not one should post such information online is up to what kind of psychology one has, and the like. I will first discuss this position, and then relate it to the view discussed above about not posting information online.

Now, to many people it might seem almost self-evident that it is up to each and everyone to decide for him- or herself how to act. And in several senses, it is, in a society like the Swedish one. But in other senses, many people would not agree that it is. If someone is convinced that something is a moral duty, they also often would hold that other people ought to act in accordance with it. Indeed, it is sometimes claimed that this is an essential feature of what ethics and morality is. (Hare, 1981) Suppose that I had asked the students if they considered it morally acceptable to beat one's younger siblings. Most of them, I believe and hope, would have said that it is not. Now, if I had continued by asking if they think that others should act in accordance with their judgement, and refrain from hitting their younger siblings, it seems reasonable to assume that they would have declared that, yes, others should act in accordance with that judgement.; they ought to, they must. And, similarly, if I had asked the students if their view was that one should or should not give one's home address to a criminal, they probably would have said that one should not, and analogously also have stated that others ought not to do it. In light of this, it is somewhat strange that some of them claimed that it was morally correct not to post information; not only did they claim that it was permissible to do whatever, but they claimed that one in fact ought not to post such information, but then went on to say that this judgement did not apply to others. This suggests that they did not really consider it to be morally demanded that one refrains from posting such information. The fact that they said that others were free to do whatever they chose, rather suggests that they consider it morally permissible to do whatever. But that is contrary to what they claimed in the first place, because when the students claimed that one should not post much information about oneself at all online, they seemed to defend a rather universal moral principle. What they expressed, as I understood them, was that, morally speaking, one ought not to post personal information online (apart from maybe a very limited amount). That is, they seemed not to speak about any person in particular, but rather about how each and everyone ought to act. But, the fact that they also defend the view that anyone is morally permitted to do whatever he or she wants suggests that they actually do not hold the view that one ought not to post personal information online, contrary to what they claim.

To the extent that they in fact defend this private morals, it is problematic in its own right. It is possible that the reason they defended this subjectivist view in the present case was due to a conflict between what they themselves perceived to be the correct way of acting, on the one hand, and the view transmitted from the adults, on the other. This clash of values could then be resolved by coming to uphold this subjectivist, almost nihilist, view. If this explanation is correct (and I will not further investigate its correctness, here), then value transmission would lead to the very opposite of what it tries to accomplish. The very rationale behind value transmission is to come to make students uphold certain values, but leading them into such subjectivism, then, is the very opposite of what is sought after. Thus writes Hall, for example, that the "problem and the challenge of moral education […] is to find a middle way

which neither indoctrinates young people into one set of moral rules nor gives them the impression that decision making is all a matter of personal opinion" (Hall, 1978, p. 12).

Now, interpretation of their views is difficult in situations like these, where there is evidence that speaks in favour of incompatible positions. What one would have to do in such a situation, is to investigate which of the inconsistent theories explains the most, and is most coherent, with information and other data, in accordance with abductive logic. And when such an evaluation is done, it seems that more speak in favour of the view that the students did not in fact accept the position that one should not post personal information online, as has been discussed above.

Moreover, the fact that they express this complex, not to say incompatible, line of reasoning further gives support to the theory that there has been some unsuccessful value transmission, as discussed above, where the students feel some pressure to uphold the opinions that are being endorsed and advertised by the adults, but do not really support these values and principles themselves. That is, we have a case of compliance (Kelman, 1958).

Consequences for online safety

It is less likely that one follows a principle that one cannot justify (Kelman, 1958), since one does not thereby understand why one ought to follow it (cf. Forsyth, 2009; Smith, McGuire, Abbott, & Blau, 1991). Even less likely with a principle that one does not really endorse, what is known as *compliance* (Forsyth, 2009; Kelman, 1958). Experiments have found that people conform more to societal norms in case they perceive it as important to get it right (Baron, Vandello & Bethany, 1996). Moreover, people tend to conform more to a group who is perceived to have a reasonable view than an unreasonable one (Forsyth, 2009). And people are more likely to act in accordance with principles that they actually accept, principles they have internalized, than those that they simple conform to out of compliance (Kelman, 1958). All this speaks in favour of the alleged explanation. But it is also worrying, since if a person with bad intentions tries to persuade a young person not to act in accordance with one of these principles or rules that the grown–ups try to foster the students to uphold, then there is a greater risk that the student will diverge from the principle if the student lacks sufficient justificatory grounds for it. It might even be that a person with an insufficiently grounded rule or principle is even more susceptible to coercion than one who lacks a principle from the start.[140]

Another problem with such principles or rules is that it is difficult for the student to apply the principle to novel scenarios and cases. If one lacks justification for a principle, it is more difficult to interpret it and understand its real function and application. To take a simple example, a child that has been taught not to eat sweets without understanding that it is the

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[140] It might be that the person who lacks a direct principle at least more readily uses his or her common sense and reasoning, while one might feel more lost and insecure when one has had a principle that has been put aside. It has been shown that people have a stronger tendency to stick to their principles and not let themselves be converge to others' opinions if they themselves have been reinforced in their prior judgements (Mausner, 1954b). Then, if the converse also holds, that someone who has had negative reinforcements of prior judgements would be more likely to conform than someone who lacked reinforcement at all, the above clearly holds. Moreover, if someone has convinced another person to drop one of that person's principles, then this second person has already started to listen to the first person and to some degree believes that there is some sense to what he or she is saying (cf. Mausner, 1954a).

sugar in it that is problematic, might have trouble applying that rule to ice cream or bakery items, let alone a novel kind of sweet. But one who instead understands that sugar is, for example, bad for your teeth, might understand how to apply this to novel cases such as ice cream. The Swedish National Agency for Education notes a similar tendency regarding democratic values, in claiming that "most of the students seem to uphold democratic values. But these values are oftentimes not deeply rooted. Children and youths have difficulties giving arguments in favour for and stand up for them in actual situations" (The Swedish National Agency for Education, 2000, p. 9, my translation).

A further problem with principles of the above discussed kind is that if they are not followed anyway, then the main reason for trying to mediate them is lost. But there is probably a cost associated with such a value transmission. In the educational system, time spent trying to mediate ineffective principles could instead be spent on something that did in fact make a difference. Moreover, if a student has been made to uphold, at least as lip service, a certain principle by a certain adult (a teacher, for example), and this principle is then not followed in practice, then this might degrade the trust in and authority of that adult (Forsyth, 2009). Experiments have shown that people tend to converge in judgement more toward those that have succeeded in the past (Forsyth, 2009; Mausner, 1954a). In the long run, therefore, trying to mediate principles that are subsequently discarded might lower the likelihood of successful transfer of principles or rules in the future.

Beyond the problems discussed above, a further problem with principles of the above discussed kind is that they might lead to a false sense of security for the adult. It might be assumed that the young person will act in a certain way due to the belief that the principle in question is upheld, but in fact the chances are that the young person will act differently, as discussed above. In fact, values conformed to only through compliance have been shown to be upheld in, and only in, situations of surveillance of the authority trying to mediate the values or principles (Kelman, 1958). Hence, the students can be assumed to act in accordance with the principles when the adults see them (which would lend a false sense of safety to the adult) but then act otherwise when on their own. This coheres well with the fact that prior research has found that adults tend to underestimate the risks that youths are exposed to. It seems common that grown-ups think that children will manage to avoid risks that they in fact do not. Hence, this is a serious problem for an approach where students are thought to uphold principles that they do not in fact uphold, or that they do not understand why to uphold or how to interpret.

Even if the principle is not jettisoned or wilfully broken, a principle which the holder lacks sufficient justification for, and therefore also understanding of, runs the risk of legitimising a behaviour that would otherwise not be seen as reasonable, that would perhaps be turned down by common sense alone. For example, one well discussed principle of online behaviour that surfaced in the present study is that one should limit certain types of interactions to friends. The principle might be something like "do not share pictures of yourself to those who are not your friends." But, even though it does not follow by standard logic, many people would assume that this means that one can share pictures with friends. Indeed, if one is not allowed to do that either, it seems a bit strange to have the first principle when one could instead settle with only the principle that one should never share pictures of

oneself. Now the problem is that if one has not understood the reasons for the principle, one might end up in risky behaviour anyway, and the young person might have a false feeling of safety from acting within the boundaries of the safety principle supported by their trusted adults, such as teachers or parents. One example is that prior research has found that children have what is perhaps a surprising way of understanding "friend" in online situations. For example, Dunkels found that children stated that they found new friends through browsing or through other users, as we have seen. If a friend of yours is friend with a person, that person is your friend as well, seems to be a kind of a principle which, in its stronger or in a bit weaker version, has some force among youth online. On the other hand, several users also browse for friends, then become friends with someone who "[is] in your physical neighbourhood, [has] the same interests as you, or who just appear to be nice" (Dunkels, 2008, p. 173). It should be noted also, that if young persons say that they become friends through browsing, then there must be some other people who become friends with the people who have browsed for them (otherwise browsing for friends would quickly stop). This means that if the wrong person is accepted as a friend in one node, either as a result of a young person browsing for that person or the other way around, then through the friend of friends principle, this person might become friends with a lot of young people who would then, following the principle that it is acceptable to share pictures with your friends, send pictures of themselves to someone they have not met. Now this is the very behaviour that the principle is supposed to hinder, but instead it acts as a legitimisation of that behaviour. Because if something seems to be legitimised by a rule, then this behaviour is less critically evaluated than if the rule would not have been there in the first place (cf. Forsman, 1999). This might sound a bit science fiction, but prior research has found, as we have seen above, that a majority of the young people surveyed had reflected unsafe internet behaviour, that a third of the girls in one study had got in touch with a stranger they met online, that half of the children aged 12-15 in one study had passed on personal information to someone they had only met online, etc. Interestingly, only 5% of the parents stated that they thought that their children had passed on such information. This might be explained by the above situation where a poorly understood and not sufficiently grounded principle ends up having the opposite consequences as it is intended to have, and where parents have a sense of safety, which turns out to be a false sense of safety, from the perceived existence of values and rules. Such an explanation goes beyond what information is in those prior studies, but the strong explanatory value of it, by abductive logic, gives reason to suggest that it should be further studied. And there are reasons in the present material to suggest that such a scenario is not unlikely, since interpreting the students' interview responses suggests that several of the characteristics of such a picture are indeed at hand, as we have seen; the students state principles that it seems that adults have tried to transmit to them, but that they do not seem to understand, do not seem to be able to justify, and that they quite readily dispose of themselves simply from starting to think about them.

Another such example that surfaced in the interviews of the present study was related to what information the students regarded as personal information. As we have seen, many of them gave the standard answers, stating that one should not give away one's address, phone number or name (although most of them probably interact under their own name online (which was not as trendy a decade ago, when the grown-ups probably came up with those

principles)), and several students noted that this means that everyone can find both their phone numbers and addresses through online services). On the contrary, none of them brought up the topic of feelings and emotions, and when I asked them about it, most of them did not find it problematic to share one's emotions online (some of them did say, as we have seen, that one should not publicly state that one hates another person, or something similar to that, but this was interpreted as being due to consideration given to how that would affect that person). Now, one problematic thing about this is that it has been found in prior research that adult perpetrators seek out young people who expose emotional or social vulnerabilities (Dunkels, 2010), so exposing one's feelings or emotions might be at least as dangerous as posting images of oneself online. If students assume that they are being supervised by rules of conduct designed to prevent risky behaviour, then there is a greater risk that any behaviour that is not banned by the rules is seen as acceptable, so that what would otherwise be normal caution is turned off, or at least tuned down.

Consequences for the reasonableness of the different approaches to ethics in school

The above discussions show a picture where value transmission is seen to play a major role. But, this value transmission seems problematic because: a) the students themselves see problems with the principles resulting from this transmission, b) the students do not in fact follow the principles, and c) as previously noted (by for example Dunkels (2007)), those who establish the rules often themselves claim not to know very much about this "new technology" – but, then, how could they make authoritative rules?

Hence, this constitutes a problem for the value transmission approach, especially in relation to new technology and technology change, and it therefore speaks in favour of a descriptive ethics or an inquiry ethics approach to ethics in school. As stated above, Dewey, like us, lived in times of rapid changes, as e.g. changes in information technology today can be said to constitute. His conclusions about the implications on moral thinking of this was that in such times (at least), customary moral thinking was insufficient since it was, by necessity, created to handle situations of the past, which, due to the rapid changes, quickly become irrelevant. Hence, the customary morality becomes obsolete – it cannot, quickly enough, be changed to accommodate the features inherent in this changing context. Hence, according to Dewey, a critical moral thinking is required.

It seems quite unproblematic to assume that his conclusions regarding moral education (in the broader sense) would be that value transmission is problematic for similar reasons. Fostering students into the customary morality would come down to giving them the moral principles of yesterday, and Dewey's point would then be that these principles would be insufficient in dealing with the problems and challenges of tomorrow (let alone today). We need not argue that fundamental moral values change[141] rapidly due to changes in society, but

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[141] But indeed, some might do that too. One example could be the value of privacy. Some would take this to be a final moral value (although most moral philosophers certainly would not), and views and opinions on the value of privacy have been quite rapidly changing over the past few years.

at least more applied moral principles might be taken to change rapidly. For example, one applied moral principle could be that one ought not to post pictures of other people online, that was arguably more widely accepted a few years ago than it is today.[142] Hence, transmitting an applied ethical principle to young people runs the risk of quickly becoming obsolete, as Dewey noted. Instead, Dewey would probably argue that we need to educate people into learning to perform the form of moral thinking that he considers the highest form of moral thinking – that which can be called critical thinking about moral matters (cf. Hare, 1981), or moral deliberation – and this is what the inquiry approach to ethics in school is concerned with. Hence, I think that Dewey's reasoning applied to the findings of this thesis constitutes an argument against the value transmission approach and in favour of the inquiry ethics approach. And it seems that the results here discussed provide some reason for the correctness of Dewey's assumption, also in our times.

Moreover, it has been found that lower levels of moral reasoning are highly associated with lower perception of one's own behavioural competence and with engagement in risky activities and the violation of societal norms (Kuther, 2000). Lower levels of moral reasoning here means a conception of morality as based on the idea of obedience ("do what you are told") and of instrumental egoism and simple exchange (cf. Park, Kjervik, Crandell, & Oerman, 2012). Such moral reasoning might very well be the result of an authoritarian form of ethics education, such as in accordance with a value transmission approach, but is instead unlikely to be found in the case of a non-authoritarian ethics education based on furthering the behavioural competence and moral autonomy of the students, such as in the case of an inquiry ethics approach. For example, as we have seen, participation in philosophical dialogs not only furthers the students reasoning and skills and abilities, it also furthers their self-confidence. Hence, it is reasonable to assume (and it would be interesting to study this hypothesis in future research) that participation in an ethics education in accordance with the inquiry ethics approach would strengthen the perception of one's own behavioural competence and lower the tendency to engage in risky activities.

The above discussion about children's online safety speaks in disfavour of the value transmission approach to ethics in school, but also in favour of the inquiry approach. It seems that, for several reasons, a value transmission approach is unable to attain the goal of lowering the risks that students are facing online.

On varieties in students' moral reasoning

In the findings section, I presented six forms of inter- and intrapersonal variety in students' moral reasoning that were found through employing the distinction between decision method and criterion of rightness in trying to interpret and understand students' moral reasoning (based on (Backman & Gardelli, 2015)). The use of this distinction enabled a nuanced and novel understanding of varieties in students' moral reasoning, highlighting differences, which has not been distinguished between in prior research, in the kinds of

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[142] Based, together with other things, on the fact that people over the past five years have been posting more pictures of both themselves and other people online than they were a few years ago.

varieties that occur in students' moral reasoning. I will now discuss what consequences this might have for future research, for our approaches to ethics in school and also for educational theory in discussing its implications for the social–cognitive domain theory, which is one prominent theory in trying to explain, among other things, varieties in students' moral reasoning (Backman & Gardelli, 2015).

Varieties and the different approaches to ethics in school

The existence of varieties in moral reasoning, e.g., interpersonal varieties, in a school where a value transmission approach to ethics in school has been used, suggests that the approach has been unsuccessful. On the other hand, findings of other kinds of varieties, e.g., intrapersonal varieties in rightness criterion dimension, if found in a school setting where an inquiry ethics approach has been taken, would suggest that this approach was unsuccessful. Hence, simply noting the existence of varieties is not sufficient to determine whether it is the value transmission or the inquiry ethics aims that has not been fulfilled. That is, the theoretical framework utilised in prior studies is insufficient in relation to this question. But utilising the six forms of varieties enables such an assessment, since certain forms of varieties are especially problematic given the specific aims of the ethics education of the school in question. Hence, the six forms of varieties in students' moral reasoning facilitate assessment and research in educational matters that has not been possible before.

As we have seen, both the value transmission and the inquiry ethics approaches are highly visible in the Swedish national curriculum, and hence it is quite likely that both of these approaches are to some extent taken in the Swedish schools. Since the results presented above give reasons to believe that varieties in students' moral reasoning both on and in between each of the dimensions exist, there are reasons to believe that neither the value transmission nor the inquiry ethics attempts by schools are very successful, at the present moment. This gives further reasons for the above discussed thesis that these approaches cannot be successfully taken together.

Explanations for varieties in students' moral reasoning

I will now return to discussing whether explanations from the social–cognitive domain theory, based on variations in context, can account for the varieties presented in the results. The interpersonal varieties found in and between both dimensions of moral reasoning might very well be explained by interpersonally different external contextual factors, such as gender, culture, ethnicity, or socio-economic background (Smetana, 2006, Wainryb, 1991), or by different informational assumptions (Wainryb, 1991; Turiel, Hildebrandt & Wainryb, 1991). Such explanations are common among proponents of social–cognitive domain theory. And variation in children's moral reasoning in connection to different actions has been noticed in

previous research (Smetana, 2006), and this might also influence the interpersonal varieties. Hence, there are parts of the above presented results that do not present a clear threat to the social–cognitive domain theoretical explanations.

However, some results presented above appear not to fit well into the social–cognitive domain theoretical explanations here portrayed. Let us once again discuss the student who was interpreted as expressing both consequentialist and Kantian reasoning. First, let us consider the explanations based on interpersonal contextual factors such as differences in culture, ethnicity, socio-economic background, or gender. None of these are reasonable explanations in this case, since it is a case of *intrapersonal* variety: it regards the same student, and hence no such varieties in context are present.[143] (But it should be noted though, that it is possible that such factors are related to the *existence* of such variety – no analysis that can have any bearing on *that* issue was made in this present research.) Second, explanations based on changes in informational assumptions do not suffice either, since the justification in terms of different rightness criteria (reasoning from both hypothetical and actual consequences) applies to the same hypothetical situation and decision method in this case, and there is no particular reason to believe that the student changed the informational assumptions during or in between the replies. Third, the variety regarded the same hypothetical situation, and hence the same dilemma character, as well as the same action or character trait. Thus, explanations based on changes in these are not appropriate either.

Another possible explanation is the student's adaption of rightness criteria to the student's beliefs about the interviewer's intended outcomes. However, this is not the most warranted interpretation, given the data. The student was straightforward and determined during the expression of the rightness criterion, and interrupted the interviewer during the posing of questions rather than expressing insecurity regarding the student's positioning in the rightness criterion dimension of moral reasoning.

Hence, the discussed social–cognitive domain theoretical explanations do not suffice to explain the case of intrapersonal variety in moral reasoning in the criterion of rightness dimension as cited above. If so, new explanations need to be proposed. However, since the present study was exploratory research with just a small sample, further studies are required. The present results (given the present methodology) do not opt for generalisable results, but establish a hypothesis about the insufficiency of the discussed social–cognitive domain theoretical explanations to account for each and every instance of moral variety. Again, it can be noted that the precision in studying students' moral reasoning that is facilitated by the distinction between six forms of varieties make possible investigations that would otherwise have been difficult, or impossible, to do.

There are several relevant kinds of explanations other than the portrayed social–cognitive domain theoretical explanations worth considering. It is possible that limiting cognitive factors such as low working memory wholly or partly account for the intrapersonal variety in

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[143] It could be argued that the interview itself is a context, and that as the interview progresses, the context changes. But if such a view is adopted, could there be any two statements given in the same context, such that the contextual explanation could be rejected, or is it impossible to find evidence against it? That is, is the framework such that no falsification of the main ideas could be given? Second, the statements that are seen as varying were given very close in time to each other, in situations where it does not seem intuitive to believe that any (significant) change in context had taken place.

rightness criterion dimension. However, while that explanation is indeed possible, it seems unlikely, since the cited replies are all given within a very short timeframe and there are no specific reasons to believe that the student forgot anything about what she said just before. Other remaining possible explanations are a low logical–linguistic ability of expressing moral thinking and its formal composition, and the possibility of the student's acceptance of logical inconsistencies within moral frameworks. None of these two explanations can be ruled out with certainty. (Backman & Gardelli, 2015)

In conclusion, while previous research has distinguished between interpersonal and intrapersonal varieties in moral reasoning, the present research provides a framework for, and has found empirical evidence for the existence of, six forms of varieties in moral reasoning, based on the distinction between decision method and criterion of rightness. Some of these are suggested as not fitting into standard social–cognitive domain theoretical models of explanation. Some suggestions for future research are briefly discussed in the concluding remarks (see "Future research").

It should also be noted that one possible explanation of the varieties in the students' moral reasoning is that the students have received a value transmission education which has not succeeded fully in providing them a coherent value system, including the replacement of their prior moral values, but which might have partly succeeded with inserting some values into their systems, which might explain the existence of intrapersonal variations and incoherencies. This cannot, of course, be firmly inferred from the present data, but, given other reasoning and the data seen as a whole, such a view still has some justification, and it could be investigated further in future research.

Students' reasoning and curricular contradictions

In this section, I will discuss the relation between on the one hand two features of students' moral reasoning, namely that it has been found to be in conflict with the values of the curriculum and that varieties have been found in students' moral reasoning, and on the other hand on the alleged existence of contradictions in the curriculum. I will discuss whether the existence of a contradiction in the curriculum could explain these features of students' moral reasoning. I will also discuss what the above findings about students' moral reasoning can give reasons to believe regarding whether there is a contradiction in the curriculum.

Let me start with discussing whether the existence of a contradiction in the curriculum would explain why the students' moral reasoning is in conflict with the values of the curriculum, because it is fairly simple to answer. I will say that there is a contradiction in the text when both a sentence[144] and its negation a) can be found in the text explicitly, or b) could be derived from other sentences in the text by standard logic. And the negation of a

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[144] It could instead be characterised by propositions, instead of sentences.

sentence is that very sentence, preceded by the words "it is not the case that."[145] A contradiction in this case would be the existence of two strictly contradictory value statements (or values) within the curriculum, for example in the value foundation.

The short answer to the above question, then, is "yes"; if the curriculum is indeed contradictory, then whatever students would say, it would be in conflict with the curriculum.[146] Hence, such findings as the students stating conflicting views with the curriculum would come as no surprise, were the curriculum actually contradictory. Therefore, the existence of a contradiction in the curriculum would explain the fact that students' reasoning is in conflict with the values of the curriculum.

Turning now to the question of whether the existence of a contradiction in the curriculum would explain why varieties in students' moral reasoning are found, things get a bit more complicated. If the curriculum would indeed be contradictory, it would not be necessary that students' moral reasoning varied in the sense that it has been found to do – it would be compatible with the curriculum being contradictory that students would still all reason pretty similarly and without both interpersonal and intrapersonal varieties. But if so, we would still need some explanation for why students would reason without varieties (and such an explanation could, for example, be similarities in culture). If there would be central claims of the curriculum which were indeed contradictory, on the other hand, then it would come as no big surprise if the students' moral reasoning was found to vary, both intrapersonally and interpersonally. Given that, on the other hand, the curriculum would not be contradictory, then it would be a bit harder to explain why students' moral reasoning would contain notable varieties. And, moreover, in such a case, if the students' reasoning would not vary, then one explanation of the similarities could be the existence of a contradictory-free curriculum (instead of for example cultural similarities). Hence, abductive reasoning shows us that a contradiction in the curriculum would have some explanatory power on the existence of varieties in students' moral reasoning.

As we have seen, the existence of a contradiction in the curriculum would explain why students' reasoning conflicted with its values. And the other way around, if the students do in fact reason in ways that conflict with the curriculum, this gives us reason to believe that there is a contradiction in the curriculum, by abductive reasoning (but it could not give any explanation of the existence of contradictions in the curriculum). Since the curriculum can be assumed to have an influence on the students' school environment, and their school environment can be assumed to influence their moral reasoning, it is reasonable to assume that the curriculum influences the students' moral reasoning. Hence, if there were no contradiction in the curriculum there would be reasons to believe that the curriculum would

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[145] More technically, the negation of a sentence A is the sentence "not-A," or "¬A" using one variant of formal language of symbolic logic, which in the natural language English can be translated into "it is not the case that A." But a more natural sounding sentence is often produced by inserting "not" somewhere inside the sentence – as long as that sentence has the same truth value as "not-A." See (Backman et al., 2012) for more correct accounts of these matters.

[146] This is so because anything is derivable from a contradiction, hence also the negation of whatever the student said. It would at the same time also be possible to derive that very statement from the text, which could be seen as a support from the text of that which the student said. But that does not make things better, rather worse, because that means that not only does anything the student say conflict with the text, the text would also support any idea the students could possibly put forward, even horrendous ideas.

have a tendency to make the students reason in accordance with it.[147] Therefore, if they in fact do not, then we have reason to believe that no contradictory free curriculum has influenced them, and one reason for that might be that the curriculum is not free from contradiction.

Now, let us discuss the question of whether the existence of varieties in students' moral reasoning gives reason to believe that the curriculum is contradictory. In accordance with what was stated above, the existence of a clear and contradictory-free curriculum can be thought to influence students into reasoning in a way that does not have the kind of varieties found in the interviews. Hence, these findings also give reason to believe that there is a contradiction in the curriculum.

Hence, abductive reasoning give us some justification for believing that there is a contradiction in the curriculum as described above. This is another argument for the importance of the results, but it also justifies the interpretational processes and studies made, since it constitutes a coherent picture. But still, it might be that I have made mistakes in my interpretations, and that would mean that we do not have the same reasons for believing that the curriculum is contradictory. Moreover, I have found reason to believe that the curriculum is difficult to interpret, and such lack of clarity might also explain several of the above findings about students' reasoning. And, to the extent that the curriculum is difficult to explain because of lack of definitions and clarity, it is also problematic to be certain that students' reasoning is in conflict with it.[148] But still, if one sufficiently reasonable interpretation of the curriculum could be given, under which it seems that the students' reasoning is at least in some way conflicting with it (let alone contradicts it), this would still be an anomaly which needed further investigation and which at least needed some puzzle solving (if we borrow some terminology from Kuhn (1962)). But, it might even be that the anomalies are too problematic, and that the way the value foundation is currently constituted would need some more extensive changes to it. Hence, there is also a need to conduct further research into the interpretational difficulties relating to the curriculum, and also into teachers' perceived difficulties of interpreting and understanding the values of the curriculum.

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[147] This is, of course, also influenced by other things as well, such as that the curriculum is fairly easy to interpret (which we have seen reasons to believe that it is not), that teachers work in accordance with the curriculum, that their methods are effective, that there are no other major things in the students' lives that move them in different directions, and so on.

[148] But if students' reasoning is found to be contradictory, either intrapersonally or interpersonally, then there is a conflict with the values of the curriculum, at least insofar as the curriculum values concern the same issues as do those of the students' values that are conflicting with each other.

If indeed the curriculum is contradictory, we have some major problems at hand.[149] And there are, besides the reasons given above, indeed *some* reasons to believe that it actually is. There are some formulations that could be problematic to conjoin. On the other hand, there might be interpretations of them in which they would not be contradictory after all. Hence, further research into the question of whether there are contradictions in the curriculum is highly needed.

On allegedly inalienable values in the value foundation

In relation to the alleged existence of contradictions between students' moral reasoning and the value foundation, and the alleged existence of contradictions in the value foundation, it is also important to gain a more precise understanding of the values in the values foundation.

In the publication "Ständigt. Alltid!," Hörnqvist and Lundgren state that the foundational values of the school should be seen as *inalienable values*, and such values are defined, in accordance with the definitions in the final proposal of the curriculum committee, as those values

> that in a given culture circle hold under all circumstances. They make up the collective moral backdrop of the citizens, and really need no justification through goal oriented arguments. Nobody can, with reference to changing demands in the working life or new findings about the learning results of education, claim that one or the other foundational values has been put out of play. Values are in force regardless of whether they in particular cases can seem impractical, unprofitable or lack utility. (Hörnqvist & Lundgren, 1999, pp. 10-11, my translation)

But this raises a number of questions. First, if these values are indeed inalienable (in the sense of this definition), then why is there any need to instill them through school? Everyone (in the relevant cultural circles) already (by definition) accepts them. Are young people not seen as members of the culturally relevant circles? And if they are not, if everyone else upholds them, is it reasonable to believe that the students will not when they eventually grow up and become seen as members of the relevant circles?

Second, how come, if all people in the relevant circles accept some shared values, do the authors claim that we live in a "pluralistic society?" What, besides the existence of several different value systems, does "plurality" here mean? And if pluralistic society indeed means

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[149] Since Aristotle, what is often called the law of non-contradiction (LNC), which can be formulated as "for any A, it is impossible for both A and ¬A to be true," has been taken to be the most fundamental principle of thinking, a principle without which no argumentation, no science, and according to Aristotle no knowledge, thinking or communication at all, can exist. (Horn, 2014; Priest, 1998). Ever since Aristotle, the "LNC has been taken as the most indubitable and incontrovertible law of thought and being, and as the supreme cornerstone of knowledge and science" (Priest & Berto, 2013, #0). It is commonly held that expressing a contradiction is meaningless, and moreover that if one asserts a contradiction, anything follows (Priest, 1998). On this account, if a document contained a self-contradiction, it would be meaningless and anything (and everything) would follow from it – hence, it would not give any guidance, which is, I take it, what the curriculum is meant to do. Hence, it would lose its meaning if it was self-contradictory. (It should be said that there are a few modern examples of philosophers (e.g. those accepting dialetheism (Priest, 1998)) rejecting LNC, but this is usually in very specific cases, such as the Liar paradox, and they would not hold that all contradictions are acceptable.)

that there exist several values systems, are then some of the persons within this plurality not considered relevant to include in "the given cultural circles," so that their values do not need to be included in the value foundation? Is the idea here that some members of our society are those that are relevant, and their value systems should be imparted to all children – both those that are included in these relevant circles, and those that are not?

Moreover, these values are claimed to be inalienable, by which it is meant that they are accepted by everyone. But then, how can it be explained that both the present research and prior research have found that they are violated and not shared by students? Yet again, this could be explained by claiming that students (some or all) are not included in the "relevant circles." But if such a road is not taken, how can these results then be explained?

Another problem is that this view seems to embrace a strong relativism. Many would claim that the reason for including the principle of the equality in value of all human beings in the curriculum is not that "a given cultural circle" agrees on it, but simply because all humans are equal in value. They would probably hold that this principle should be part of the value foundation whatever the given cultural circle believes about it. They would claim that people are equal in value, end of story. Stating that this is an inalienable value because relevant people believe in it seems to mean that if these relevant people were to stop believing in it, then all people would not be equal in value. But this is a scary view that sends chills down the spines of many people. (And such an argument seems extra effective against a relativist position like the one discussed, since relativist positions are sensitive to what people believe, and hence, if many people are put off by this position, than it would, according to its own logic, be problematic.)

Moreover, since the claim is so strongly formulated as that a value is inalienable because it, in a given culture circle holds under all circumstances, it seems that anyone in this group can claim that it is rejected simply by him or her not accepting it anymore (e.g. by believing that it is impractical or non-utilitarian), contrary to what Hörnqvist and Lundgren (1999) claim.

It can also be asked how this understanding of inalienable values cohere with a human rights approach, such as the Universal Declaration of Human Rights from the United Nations (1948). Typically, within a rights based tradition, something is inalienable just because it does not depend on what any group thinks about it. Human rights are normally conceived of as being natural, or to follow from reason itself (Nozick, 1974) as we have seen above.

What approach to ethics in school?

In the results it was found that all three approaches to ethics in school are prescribed by the curriculum, albeit to different degrees. One of the most prominent approaches was found to be the inquiry ethics approach. On the other hand, it has been suggested in prior research that inquiry ethics is very rare in the classroom (Wyndhamn, 2013). It has also been reported that schools' work with ethics is insufficient. Based on this, as well as the discussions above, several questions arise. Perhaps most prominent is the question of what speaks in favour of the different approaches to ethics in school. It has already been touched upon above, but will receive a more detailed exposition in this section.

Youths' resistance against online extremist propaganda

In the background, it was shown that researchers perceive a growing problem with young people being exposed to extremist propaganda online, and that there is a need to find educational practices that can help students develop abilities to withstand such propaganda and become resistant to anti-democratic views. This is a topic with connections to many questions of relevance to school, but it is to a large degree a matter of ethics. It is important to discuss to what extent our different approaches to ethics in school can handle this issue. How can the discussed approaches to ethics in school be thought to be able to counteract such tendencies, and help students to develop resistance against extremist propaganda?

In this section, I will discuss five arguments for why participation in dialogic education with an inquiry ethics approach to ethics in school, such as philosophical dialogues, would increase young people's ability to encounter online extremist propaganda that expresses a worldview painted in black and white, an anti-democratic attitude, and intolerance towards persons with opposing views.[150] I will thereafter discuss whether a value transmission and a descriptive ethics approach to ethics in school can be thought to reach similar results.

Let us first turn to scrutinising how participation in inquiry ethics education could increase young people's abilities to encounter online extremist propaganda that expresses a worldview painted in black and white, an anti-democratic attitude, and intolerance towards persons with opposing views. In doing so, I will discuss and evaluate five arguments for why participation in an inquiry ethics education is a good means for young people to develop insights, attitudes and thinking tools to reduce the influence of extremism encountered online, by achieving a stronger democratic awareness and a more tenacious resistance to extremist views.

Five conditions for ethics education for online resistance to extremism

Meeting experts' requirements about dialogue with non-fostering adults

In the VA report[151], the following suggestion about how society ought to handle and prevent young people seeking and joining extremist movements and organisations is given by the authors, experts in the subject area of violent political extremism:

> A crime preventing strategy towards the youths who are in the risk zone of being drawn into violent extremism is to challenge the black and white worldview that these organisations offer. In this, both the society in general, in the form of media and elected officials, and adults living

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[150] This discussion is based on the article "To Colorize a Worldview Painted in Black and White – Philosophical Dialogues to Reduce the Influence of Extremism on Youths Online" (Nilsson et al., 2015). Parts of the article have been omitted, some parts have been rewritten, and new text has been produced here, as well.

[151] "Violent political extremism – Anti-democratic groups on the outermost right and left wings." (Korsell et al., 2009, my translation)

around the individual, share a responsibility. For adults in contact with the person, the task is to discuss and reason. The keyword in these talks is dialogue. The adult should not try to force the individual to uphold "correct" ideas, but on the contrary, it is important to listen and to take the individual's views and opinions seriously. The extremist groups use a black and white worldview with a strict border between friends and enemies and oversimplified solutions to complex issues. By listening to and understanding the young person's experiences and dawning worldview, it is possible for an adult to make this oversimplified worldview more nuanced through a constructive dialogue. (Korsell et al., 2009, p. 145, our translation from (Nilsson et al., 2015))

As discussed above, a prime example of an inquiry ethics approach to ethics in school is a philosophy with children approach to ethics. Important features of such dialogues with regard to counteracting extremism are that the dialogues within a philosophy with children approach are practiced in collaboration with others in a community of inquiry, where ideas are shared and collectively assessed, which helps the students train their ability to take new perspectives, to see things according to other participants' perspectives, to formulate new ideas and to give arguments and counter arguments. The way that the adult facilitator works within such dialogues is well in line with the approach suggested by the crime preventing researchers and experts quoted above. A majority of the methods and approaches suggested in the VA report are, as we have seen above, already prominent in practices of philosophical dialogue with children. Within such a practice, it is emphasised that the young people themselves reach their own views and positions about the questions being discussed. To listen to an adult announcing what is right or wrong does not give rise to the same elevated understanding of a point of view as does being provided the opportunity to formulate one's own reasoning and arguments, with support and input from other persons at a similar cognitive level, without being forced or fostered into accepting established views from an authoritative world of adults (Gardelli et al., 2014).

Promoting critical thinking ability

As we have seen, there are differences regarding meeting information online versus in a classroom or a textbook. Niche discussion forums, websites, channels or subscription to some specific writers on the Internet become meeting places for persons with similar ideas, where a critical perspective is missing, but confirmation of the groups' beliefs are common, run the risk of replacing open forums where several ideas can surface, like the classroom, the traditional media and the open society. Skills in critical thinking and thereby abilities to challenge information and propaganda are needed, but many children have been found to lack such skills and dispositions, but instead trust most of what they read online. Such skills, together with a high level of self-confidence and self-esteem would therefore be of importance, since it would lead to young people on the Internet becoming more prone to challenge the one-sidedness and bias, and to question the trustworthiness of claims and arguments portraying a black and white worldview.

As we have seen, dialogic education in general, and philosophy with children in particular, and therefore also the inquiry ethics approach, have a good potential to help students develop skills in critical thinking, the disposition to question assumptions and arguments, and not believe whatever they read, to have more self-esteem and be more self-confident, and less

prone to intellectual dogmatism. It hence seems likely that the promotion of such a combination of critical thinking skills and personal traits leads to a better disposition to resist unwarranted extremist propaganda (Nilsson et al., 2015). To sum up, an inquiry ethics approach to ethics in school seems to have a good chance to promote students' critical thinking and critical thinking skills and abilities about ethics.

Rebutting anti–democratic approaches

Creating opportunities for young people to learn to found their own points of view and approach information with a critical attitude seems to give rise to many positive effects that can be of great use when encountering extremist opinions, maybe first and foremost on the Internet, where young people often have to evaluate information on their own. And if these skills and dispositions to taking a critical stance are developed through philosophical dialogues within a community of inquiry, there seem to be even more benefits.

One way to involve young people in our democratic society is to introduce them to democratic principles and methods at an early stage, and to let the young people themselves exercise their democratic power. Such an approach to democracy education is old, and has many proponents (for example Dewey (e.g. 1916) and Lipman et al. (1980)), but it is unusual to find genuine examples of such practices in school (Topping & Trickey, 2007b), one reason possibly being that it conflicts with the ordinary situation in school where the teachers – as the authority – set the agenda, not leaving much real room for democratic expressions and democratic practice from the students (Haynes & Murris, 2011). But an inquiry ethics approach to ethics in school in general, and a philosophy with children approach in particular, provides such an opportunity (Barrow, 2010; Haynes & Murris, 2011; Vansieleghem, 2005). The idea that students hereby get to learn to act democratically does not necessarily mean that they will act this way in the future too, but with such practical knowledge comes at least knowledge about how a democratic practice is carried out. And research has shown, as we have seen above, that there are many good reasons for believing that students that have participated in philosophical dialogs will indeed be more likely to act democratically.

Several characteristics of philosophical dialogue within a community of inquiry are strongly connected to democracy and its practice (Gardelli et al., 2014; Tozzi, 2009). Philosophical dialogues are often structured by classical democratic principles where the participants first jointly choose philosophical questions to discuss by voting and thereafter are invited to respect and listen to each others' thoughts and opinions during the joint search for answers to the questions posed (Barrow, 2010). To let young persons practice democratic methods and act in accordance with basic democratic values, such as equality and freedom of speech, can be a way to create understanding for the importance of these values and methods, and this may in turn facilitate legitimisation of a democratic form of government in the participating youths. Research shows that even at an early age, students develop skills such as those listed above, if they are engaged in philosophical dialogues (Vansieleghem, 2005). Involvement in philosophical dialogues is a way of educating children in reflective citizenship (Tozzi, 2009). Hence, an inquiry ethics approach to ethics in school seems to have a good chance to counteract anti–democratic approaches.

Counteracting intolerance

Many advocates for the democratic form of government have stated that a prerequisite for a society to function optimally is that a broad spectrum of ideas and views are accessible to serve as inspiration (Cam, 2009). The more voices that are being heard, the more aspects and perspectives are brought to the collective building of society, which thereby attains a broader knowledge base to rest upon.

This kind of thinking is also to be found within a community of inquiry. In a philosophical dialogue, the participants' personal opinions on the question for discussion can often be regarded as essentially irrelevant. What is central is rather that the dialogue itself progresses, supported by the participants' different perspectives and arguments of various kinds (Murris, 2014). Hence, a person with a divergent opinion does not have to be considered a threat to the other participants' private positions or to the suggested answers advocated by a majority, but such a person can on the contrary be considered a great asset, who, through his or her unique opinions or reasoning, can contribute with a new perspective to the dialogue. Neither is it unusual that participants who actually hold a certain position also put forward arguments against their own view, since the main aim in the dialogues is to explore the issues and questions, and not to convince other participants about the superiority of one's own position.

This pluralistic perspective is contrary to the attitude in the extremist movements, where it is common to consider certain solutions to problems superior right from the start, and where persons with divergent opinions and perspectives are considered enemies with ideas that have nothing to contribute (Korsell et al., 2009). If the attitude of the community of inquiry, where different views are considered assets rather than threats, can be generalised to society in general, then this could lead to increased respect, understanding and tolerance towards individuals with other views than one's own. Matthew Lipman described the practice within a community of inquiry as a practice where:

> [s]tudents listen to one another with respect, build on one another's ideas, challenge one another
> to supply reasons for otherwise unsupported opinions, assist each other in drawing inferences
> from what has been said, and seek to identify one another's assumptions. (Lipman, 2003, p. 20)

A prerequisite for all this is that the participants actively try to understand each other's ways of thinking, to thereby be able to use and be inspired by the different ideas that stem from different kinds of premises and reasoning. Then the participants can make use of the common knowledge that is thereby put at their disposal and together take the philosophical investigation forward. To be encouraged to understand other persons' perspectives and ways of thinking would likely contribute to increased tolerance towards persons with different opinions. Accordingly, there is previous research suggesting that young students who have participated in philosophical dialogues show more tolerance and appreciation towards persons with opposing viewpoints than students of the same age not participating in philosophical dialogues (Malmhester & Ohlsson, 1999).

A forum for dialogue about ideology

In the VA report, it is declared that, among the different types of personality of the young individuals that seem especially sensitive to extremist ideologies, there are the "pondering" youths who have a great interest in politics and ideology. It is stated that:

> In the same way as those who act out, the ponderers have difficulties finding their places in society, but instead of becoming externalising they turn inwards, searching for answers to the questions by reading and thinking. […] Studying on your own and discussions are encouraged in the family, which early on awakens some interest in politics, ideology and religion. Therefore, an intellectual way into extremism lies close at hand. Literature and own thoughts about injustice in society, combined with a feeling of frustration, make ponderers sensitive to radicalisation, which often happens after an experience of insight or a transformational incident. (Korsell et al., 2009, p. 148, our translation from (Nilsson et al., 2015))

The practice of philosophical dialogue in a community of inquiry can be dedicated to ideological questions about, for instance, the concept of democracy, the importance of equality, or how ideas about justice should best be understood. These issues would then moreover be discussed in-depth and from several different perspectives. Within a community of inquiry, questioning of commonly acknowledged values and attitudes is not considered controversial, but rather, critical and curious attitudes towards ideas of all kinds are encouraged, since this contributes to greater depth in the dialogue.

With this in mind, we believe that philosophical dialogues could offer an encouraging and neutral platform where youths with an interest in politics and ideology could participate in order to share their thoughts. To discuss ideological questions within a community of inquiry could thereby function as a non-biased substitute or complement to other forums where similar questions are discussed with a more biased point of departure. If youths that participate in Internet-based discussion contexts where extremist ideas are advocated were provided the opportunity to illuminate the questions under discussion from other perspectives, then it would likely result in the youths becoming less affected by the extremist ideas, since these would have been scrutinised within the community of inquiry and have been compared to alternative points of view. The positions put forth in the forums for extremist debate would likely also appear less convincing when more perspectives are introduced and the worldview painted in black and white loosens up.

Ethics in school and youths' online resistance to extremism

Now that we have seen some conditions that an effective educational practice can be considered in need of satisfying, I shall turn to discussing how our different approaches to ethics in school are able to meet these. In doing so, the question of whether or not an education in accordance with each perspective, respectively, will be able to successfully handle the task of helping students develop a resistance against extremist propaganda online will be addressed.

Summarising what we have seen above, it is quite clear that the five arguments considered seem to give strong support for believing that philosophical dialogue with young people, and

hence an inquiry ethics approach (at least in one of its embodiments), would be beneficial to their acquisition of insights, attitudes and thinking tools for resistance to the messages of extremist movements, which are characterised by a worldview painted in black and white, an anti-democratic attitude and intolerance towards people with opposing ideas. This is especially relevant considering youths' increased use of the Internet, and the appearance and influence of extremist ideas online lately. Since biased or doubtful information spread on the Internet is not always traceable and often stands uncontested, the individual needs to be skilled in independently considering the reasonableness of the mediated information.

Experts in violent political extremism consider respectful and non-fostering dialogues where youths' own opinions are taken seriously as effective in making youths question the worldview, painted in black and white, provided by extremist movements. This corresponds well with an inquiry ethics approach to ethics in school and to the pedagogy typically applied in philosophical dialogues, where participants are encouraged to elaborate on their ideas and opinions against the background of their own reasoning; reasoning that is explored and gets its reasonableness contested within the community of inquiry.

Previous research indicates positive effects on critical thinking in young people that participate in philosophical dialogues. This helps in preparing students to effectively judge and criticise extremist messages, information and propaganda encountered online. Participating in an inquiry ethics education, such as philosophical dialogues about ethics, would likely also contribute to developing a positive attitude towards, and understanding for, democratic principles, which is partly achieved through the democratic procedure of the dialogue, but also by inviting different opinions and perspectives, which are appreciated and welcomed within the community of inquiry. Furthermore, if this positive attitude towards different ways of thinking would be generalised to include a greater part of society, this would likely contribute to diminished conceptions of an "us and them" perspective, counteract intolerance, and contest the worldview painted in black and white that is characteristically endorsed by extremist groups. It promotes the free sharing of ideas and public opinion characteristic of modern democracies. Moreover, specific questions about justice and democracy can be the topics of the inquiry, and hence be discussed thoroughly and during the dialogues, something that would potentially make the extremist points of view related to these questions appear unreasonable, since that view would have been challenged by critical scrutiny within the community of inquiry.

Let us now turn our attention to the value transmission approach to ethics in school, and briefly discuss its prospects of helping to counteract the effects of extremist propaganda on young people online. First, it should be noted that a value transmission approach to ethics in school has a fairly decent potential to be successful at counteracting intolerance, if values such as tolerance and respect are successfully transmitted to the students. It also has some potential to rebut anti-democratic approaches, as discussed above concerning the citizenship argument. But, here we also see some of its weaknesses. As will be more clear below, in relation to the discussion about the citizenship argument, democracy demands more regarding ethics and morality than simply coming to accept some values. It demands ethical skills and abilities, it demands a willingness and experience of practicing democracy, being part of a shared conversation about the moral issues that arise in society. The national curriculum also notes

this, in its emphasis that democracy should be practiced. But there is not much that is democratic about the value transmission approach, apart from the fact that there is some democratic process (involving only grown-ups) involved behind choosing the pre-defined values; the students do not get to practice democracy in such an approach. Moreover, the value transmission approach has very limited potential to provide a non-fostering dialogue, to promote critical abilities, and to provide a forum for dialogue about ideology. And it is further limiting that the one-sidedness of its approach to ethics education is similar to the black and white pictures and one-sided values promoted by extremists online; it has some grave methodological limitations. Moreover, it can, as discussed above, be questioned whether it can even be thought to very efficiently fulfil the one part that it does have speaking for it in regard to its ability to meet the challenge of online extremism; its effectiveness in teaching the students such values as tolerance, respect and the equal value of all human beings. As the results show, there are reasons to believe that schools do not reach these aims. Hence, it seems that the value transmission approach is quite limited in its prospects to meet the challenge of online extremism.

Let us now turn to the descriptive ethics approach, and study its merits in helping to counteract the effects of extremist propaganda on young people online. It seems that a descriptive ethics approach has more limited hopes than the value transmission approach in succeeding to counteract the online extremist propaganda. It might have some potential to be successful at counteracting intolerance, if knowing about different people's different opinions would make the students less intolerant. And it is likely that a knowledge of the existence, and content, of other possible views does some good in counteracting extremism, and the descriptive ethics approach can at least partly fulfil that. It also has some potential to provide a forum for dialogue about ideology (at least a dialogue about what kinds of ideologies there are, even though it has very limited potential to provide a non-fostering dialogue, to promote critical abilities, and to rebut anti-democratic approaches.

We have seen that a dialogic approach in general, and a philosophy with children approach in particular, is a promising candidate for a pedagogical approach adequate to help children develop a resistance towards anti-democratic and extremist propaganda on the Internet. Hence, the inquiry ethics approach is promising in meeting the challenge posed by extremism online. The value transmission approach, on the other hand, does not seem as promising in these matters, and the descriptive ethics approach has even less speaking in its favour. Hence, this speaks in favour of the inquiry ethics approach over the other approaches to ethics in school. As we shall see below, this also speaks in favour for the ability of the inquiry ethics approach to fulfil the aims of the citizenship argument.

Three arguments for ethics in school

In this section, I will turn to three more general arguments for having ethics in school, and scrutinise to what extent each approach can make sense of these arguments. I will start by presenting, analysing and critically discussing three arguments for incorporating ethics in

school.[152] These arguments concern ethics in education in general, but they apply to technology education as well. All of them have been discussed in the context of moral education, and philosophy of education in general. After having presented the arguments, I will consider their strengths given each approach to ethics in school presented in the theoretical background above, respectively. Each argument in its original form contains the ambiguous expression "ethics in school." By making this more precise, in accordance with the three different approaches respectively, three new arguments arise for each one of the original arguments. Hence, the original arguments are expanded to become nine arguments for ethics in school; three arguments for each perspective on ethics. Each one of these "new" arguments will have the phrase "ethics in school" changed for the more precise phrase favoured by the corresponding approach. This is a way to understand and scrutinise the arguments themselves, but even more important to this thesis, it is a way to better understand and evaluate the different approaches to ethics in school; if the arguments for ethics in school are strong given a certain approach to (or interpretation of) "ethics in school," then this approach to ethics in school is justified to a greater extent; if the arguments turn out weak given a certain approach, then this approach is not as justified. The approach that provides the strongest arguments is the most reasonable approach to ethics in school, as far as the evidence considered here is concerned. Let us now turn to the arguments.

The citizenship argument: The school has an obligation to foster students to become good citizens (Dill, 2007). Ethics in school would benefit this. Hence, we should have ethics in school.

The quality of life argument: The school has an obligation to help students to be able to live better lives or has an obligation to foster the students to become persons who act in a morally correct way (Rowe, 2006). Ethics in school would benefit this. Hence, we ought to have ethics in school.

The tool argument: The students' results in other subjects would improve if the students had ethics in school (compared to more of the same) (Lovat & Clement, 2008). Hence, there should be ethics in school.

Now, let me describe the arguments in a little more detail.

The citizenship argument

In short, the citizenship argument could be explained thus: The school has an obligation to foster students to become good citizens (Dill, 2007; National Agency for Education, 2000). Ethics in school would benefit this. Hence, we should have ethics in school.

This first argument focuses on the school educating students to becoming good (or well-functioning) citizens (Cookson, 2001). The idea that school ought to educate students into being good citizens can be found in the writings of Dewey (1897) and Lipman (2003), amongst other philosophers of education. These interpretations are supported by others, such as Dill (2007), Riley and Welchman (2003), and Murris (2008). Moreover, Althof and

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[152] I have presented, described and discussed these arguments before (Gardelli, 2011; Gardelli et al., 2014), and the discussion here is based on what was said there, and to some extent, text from the latter of the above sources has been reused here. It should be noted also that my terminology here differs from what I used earlier.

Berkowitz (2006, p. 495) claim that "[a]ny democratic society must concern itself with the socialisation of its citizens." It is reasonable to hold that this ought to be done (at least in part) through education. Sheppard et al. (2011, p. 69) also support this claim, in stating that "[g]iven the dynamic and responsive aspects of democracy and its historical symbiosis with education, it seems reasonable if not imperative for educators to continually consider how to more effectively foster the development of democratic citizens." Skolverket (2000, p. 7) also state that "schools and preschools have a commission to develop democratic competence in the students, which contains using democratic working forms [and] developing democratic citizens."

The quality of life argument

In short, the citizenship argument could be explained as follows: The school has an obligation to help students to be able to live better lives or has an obligation to foster the students to become persons who act in a morally correct way (Rowe, 2006). Ethics in school would benefit this. Hence, we ought to have ethics in school.

The second argument resembles the citizenship argument, but they are distinct. It takes its foundation from the idea that school ought to engage in increasing the welfare or quality of life of the students. These two ideas often occur together, but I hold them to be distinct for reasons outside the core of this discussion. It has been stated, for example by Dewey (1897), that school has a duty or obligation to educate students in a way that helps them to live better lives. This can be expressed in the way that the school has an obligation to educate students to become persons who act morally correctly, or more morally correctly than they would otherwise have acted (Covell & Howe, 2001). Winch (2010, p. 174) states that it has "traditionally, and rightly, been thought that education is a preparation for a worthwhile life."

The next step in the argument is the premise that ethics in school would promote this goal, that is, educating students to live better lives. The conclusion of the argument is that there ought to be ethics in school.

The tool argument

In short, the citizenship argument could be explained like this: The students' results in other subjects would improve if the students had ethics in school (compared to more of the same) (Lovat & Clement, 2008). Hence, there should be ethics in school.

The third argument differs slightly from the above two, in focusing on the students' abilities to learn other subjects better through ethics in school. The argument can be stated as follows: if one learns ethics and ethical abilities, one is more likely to succeed in learning other things, such as other subjects in school. It could also be that the students, in learning ethics, would develop their cognitive abilities, which would be useful in other subjects. Hence, there should be ethics in school.

Comparing and assessing the arguments

Considering the three arguments presented above, given each of the three approaches (the descriptive ethics, value transmission, and the inquiry ethics approach) to ethics in school also presented in the theoretical background (see "Three approaches to ethics in school"), we obtain nine arguments for ethics in school, as I have described above. For clarity, the approaches to ethics in school are the descriptive ethics approach, the value transmission approach, and the inquiry ethics approach. Now, in order to evaluate these approaches, we could compare the different groups of arguments that are obtained when we "insert" the given perspective into the argument, that is, when we interpret the expression "ethics in school" within each argument as the kind of ethics prescribed by each perspective, respectively. This chain of reasoning could be illustrated by Table 7 below:

Table 7. The nine resulting arguments

	Descriptive ethics	Value transmission	Inquiry ethics
Citizenship argument	1	2	3
Quality of life argument	4	5	6
Tool argument	7	8	9

In evaluating each pair of argument and approach, corresponding to a numbered box above, I will use a scale of strength with the following five points: weak, rather weak, intermediate, rather strong, and strong.

It should be noted that one could provide other arguments for why there should be ethics in school than those discussed here, which might speak in favour of the perspectives differently, which is to say that my treatment here is not exhaustive or complete when it comes to reasons for having ethics in school. But these arguments, as we shall see below, all seem to be relevant to why there should be ethics in school, and hence to be of relevance to the approaches and the question of their respective strengths.

The citizenship argument

The crucial step of this argument is the second premise, which is that ethics in school helps educating students to become better citizens. As mentioned above, one can ask what it means to be a good (or well-functioning) citizen, and in order not to get too far off track with a more thorough investigation here, we can assume that it (at least for the time being in democratic countries) has something to do with embracing typically democratic values, such as caring for others (Winton, 2008), having what Rawls (1971) calls a sense of justice, as well as to relate to intellectual skills needed among the citizens for democracy to function well, such as being able to form a coherent judgement or position and argue for it (Rawls, 1971), being able to value others' arguments and taking a critical perspective (Lindop, 1993), and similar skills needed for a functioning democracy (Hinton, 2008; Portelli & Reed, 1995;

Swedish National Agency for Education, 2011b). Such skills are important also in making decisions involving technology, which are common to our life and times, both personally, as in, for example, deciding whether to select one technology or another when choosing a new consumer product (such as a smartphone, computer, etc.), and more collective choices like a community vote on whether to invest in district heating. (Gardelli et al., 2014)

It should be noted that the importance of the critical thinking skills mentioned above vary between different concepts of citizenship. For example, a defender of a libertarian concept of citizenship would probably consider them more important than a defender of a communitarian concept of citizenship. Nonetheless, it seems fairly reasonable to consider them at least of some importance to the most common views on citizenship. Clemitshaw (2008) claims, however, that modern conceptions of citizenship education have come to focus more on the development of critical skills and skills of participation than has been done before. He discusses one influential view on citizenship education as being defined under three headings: "knowledge and understanding about becoming informed citizens, developing skills of enquiry and communication, and developing skills of participation and responsible action" (Clemitshaw, 2008, p. 143).

The citizenship argument itself seems prima facie plausible. But to really be able to scrutinise its strength, we need to be more precise in what is meant by "ethics in school." Hence, let us evaluate the argument in relation to our three approaches to ethics in school, in turn, starting with the descriptive ethics approach. Students should, according to this approach, learn what people think about some moral matter: for example, what the majority of people in the world think about the regulation and evaluation of new technologies and what risks are accepted in the deployment of these (cf. Ferretti, 2010; Papastephanou, 2006), or what they think about moral matters relating to computers and the Internet (Bynum, 2015; Joshi & Krag, 2010) such as pirate copying and intellectual property rights. The descriptive ethics approach to ethics in school seems unable to make the second premise reasonable: why should one become a better citizen by knowing descriptive propositions about others' moral values, such as, for example, whether or not the majority deems stem cell technology to be morally unacceptable? Could it not be so that a quite terrible citizen, one who never votes or takes an active part in public life whatsoever, has extremely broad knowledge of other people's values? Indeed, one can take part in societal activities, for instance, voting, as a very good citizen without having much interest in others' values, but being rather clear about one's own. There seems to be a weak connection, if one at all, between learning descriptive facts about ethics in school and citizenship. Hence, the descriptive ethics approach renders the citizenship argument rather weak.

Our second approach, the value transmission approach, might be thought to give rather strong support to the second premise. If one is successfully educated to hold certain values or judgements (of importance for society), it seems rather likely that one is also going to be a more well-functioning citizen, than if one did not accept those values. This reasoning seems to be in accordance with the reasoning given by Hörnqvist and Lundgren (1999) in defence of the value foundation, as given above. And the question raised by Colnerud and Thornberg (2003) concerning "whose value foundation" should be prioritised could be seen to pose a problem as well for the value transmission approach. But for a moral realist, this would not

pose a big problem, since a realist could claim something along the lines that those values that can be given the best justification are those that we have the best reasons for holding to be the correct ones, and hence those that should be included in the value foundation.

A more pressing problem for the value transmission approach is that again, in order for it to have a chance of success of making the argument a strong one, it must be presumed that the attempt to transmit values is actually successful, that the values are actually beneficial to society, and that the students did not already uphold those values or would come to uphold them in some other way if they had not been subject to value transmission in school. These are strong assumptions, and it therefore speaks quite heavily against the ability of the value transmission approach to render the argument strong. Moreover, there are other problems to this approach as well. One such problem is that the values, judgements, and abilities of centrality for democracy are not only such things as the judgement that all people are equal in value, or similar values that students might possibly be taught to uphold through value transmission. Instead, abilities (or generic skills) (Collins & Halverson, 2010; Mustakova-Possardt, 2004) such as critical thinking, decision-making abilities, and abilities to form moral judgements, are of importance to well-functioning citizenship according to many scholars, as we have seen. The value transmission approach, though, prescribes the mediation of substantial values and not directly development of thinking skills. At best, then, the value transmission approach gives a rather strong support to the citizenship argument.

The third approach, the inquiry ethics approach, seems even more capable of giving support to the second premise. Research shows that even at an early age students develop skills such as those listed above, if they are engaged in philosophical dialogues (Kurfiss, 1988; Vansieleghem, 2005). Involvement in philosophical dialogue is a way of educating children in reflective citizenship (Tozzi, 2009). The critical perspective taken within this approach is likely to promote the abilities of critical thinking needed for a democracy to function well (Cam, 2009). Moreover, values of great centrality to democracy, such as respect for others' opinions and values, and a willingness to let them speak and to actually listen to them, are promoted by such dialogues (Trickey & Topping, 2004). Sheppard et al. (2011, p. 79), in reviewing some recent research literature on citizenship education, conclude that "it is not surprising to find a wealth of research which suggests that classroom discussions of controversial issues are powerful tools for fostering more active citizenship." More or less controversial issues are a main starting point for a philosophical dialogue about ethics in school. Fisher claims that "there is no better preparation for being an active citizen in a democracy than for a child to participate with others in a community of enquiry founded on reasoning, freedom of expression and mutual respect" (2001, p. 73). Indeed, it might be argued that a genuine dialogue in school is a necessary condition for democracy education, in order not only to educate *about* democracy, but also to practice democracy and to develop democratic competence in the sense of the kind of thinking and communication skills and abilities that has been discussed above. In that vein, Alexander (2012) claims that a genuine dialogue as described above is the basis for democratic engagement. On the topic, the Swedish National Agency for Education (2011b, p. 40) states that there are three basic ingredient in democracy education: "the first part is concerned with the children and students gaining knowledge about human rights and democracy. The second is concerned with influence and

participation and the third is about developing democratic competence in the form of communicative abilities." They also note that "engagement in, and understanding of, […] ethical questions and issues of different kinds […] leads to the development of democratic competence" (Swedish National Agency for Education, 2011b, p. 40). They have also earlier (Swedish National Agency for Education, 2000) claimed that a dialogue is a fundamental requirement for school's work with the democratic values, and have noted that:

> In a dialogue[153] different views and values can be contrasted with, and challenged against, each other. The dialogue includes a striving for the individual her- or himself to take a stance on ethical matters through listening, considering, seeking arguments and valuing, and at the same time the dialogue constitutes an important tool for developing understanding for one's own and others' views and opinions. A school that works to strengthen the relations – and use dialogues where everyone has the chance to participate – fulfils both the demand for democratic working forms and their opportunities to develop children's and youth's democratic competence. (Swedish National Agency for Education, 2000, p. 8, my translation)

Now, the first part of democratic education as described by the Swedish National Agency for Education above, to some extent seem to be a matter of descriptive ethics, as well as (other) social science, and to some extent to be a matter of inquiry ethics (there are two different meanings of "knowledge about human rights", one of which would be concerned with a descriptive ethics approach, and the other with the inquiry ethics approach) which means that the descriptive ethics approach might contribute more to this argument for ethics in school than might first be thought, at least if not taken in isolation. The second and the third parts of such a democracy education can only be reached through an inquiry ethics approach (and the second one especially seems to be quite directly counteracted by a value transmission approach).

Given what has been said above, it seems reasonable to believe that if students learn ethics in the inquiry ethics approach sense, they are likely to become well-functioning, active citizens, with developed democratic competences and values. Thus, when considering this argument, it seems that the third approach is very successful. The inquiry ethics approach renders the citizenship argument strong. And indeed, if it is true that a genuine dialogue is necessary for this citizenship education, and the inquiry ethics and value transmission approaches are contradictory, then the value transmission approach does not render this argument strong at all, but rather is directly contradicted by it. Hence, the value transmission approach could be seen as rather weak in the effort to render this argument reasonable.

The quality of life argument

This argument seems intuitively promising. Again, the first premise, that an important aim for education is to help students live better lives, is rather uncontroversial. It seems that the weak link might be the second step, the supposition that having ethics in school would benefit this goal. This is analogous to the citizenship argument discussed above.

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[153] They use the Swedish word "samtal", which can be translated as "conversation" or "dialogue." While we in Swedish also can use the term "dialog", I think that what they here are after is "dialogue".

Now to the capacity of the different approaches to make sense of this argument, starting with the descriptive ethics approach. In this sense of having ethics in school, the second step in the argument seems to be problematic. Why would learning about other people's moral behaviour, beliefs, attitudes, or something similar lead to one living a better life? It is other things than knowing what other people think, it seems, that are important for me to be living a good life; important are such things as my ability to identify, and thereby being able to effectively and consciously pursue, my own aims and goals, the ability to form a judgement about what a good life is, and the like. But this does not have very much to do with the descriptive ethics approach. There could be indirect connections, though, for example, in knowing that other people's values and attitudes could help one get by in life (e.g. being too different from others might be troublesome). However, this is only indirect, and still depends on one knowing what to do with this insight. Dealing with ethics in accordance with the descriptive ethics approach does not provide this. Hence, the quality of life argument seems weak given the descriptive ethics approach.

The second approach is the value transmission approach, holding that the school should aim at transmitting certain values to the students in order to make them become better persons, in a moral sense. This approach, in contrast with the first, seems to give a rather strong support to the second step in the argument (cf. Covell & Howe, 2001). In this sense of practicing ethics in school, it seems likely that the school will promote the moral aspects of the students' lives, given that the school succeeds in its undertakings (which we will relate to below, in discussing the tool argument and the value transmission approach). However, we can note already that there are reasons for being sceptical as to whether the value transmission approach to ethics in school can actually bring about the kind of learning that promotes quality of life (Rowe, 2006). Other arguments for this position come from Dewey, who thinks that values themselves are not given, but are experimental outcomes of inquiry (Semetsky, 2009), and Smith, who holds that ethical matters are never "conclusively settled [due to their] dialogic and tentative nature" (Smith, 2011, p. 178). There always have to be elements of inquiry about and redefining of values, then, and that seems to speak against the value transmission approach in its rigid and top-down view of morality. To conclude, the value transmission approach renders the quality of life argument intermediate.

The third approach, the inquiry ethics approach, interprets ethics in school as a discursive and critical undertaking, where students are encouraged to examine their own as well as other moral standpoints and actions, giving arguments for and against them, and trying to build up an ethical awareness. For this approach, the second step in the argument seems reasonable; the premise seems correct. One of the things to be discussed in such ethical dialogues would be what quality of life is, and how one lives a good life. Hence, if school aims at helping the students develop an ability to evaluate and form these kinds of judgements, then it seems that the students, if school succeeds, are more capable of living morally good lives. For example, Merry (2007, p. 55) argues that "the well-being of the child is paramount and […] one of the best ways to promote a child's well-being is to provide an education likely to promote autonomy [so children can] pursue their own conception of the good." Developing autonomy of thinking is one of the benefits of doing inquiry ethics. Indeed, UNESCO (2009) claims that philosophy for children provides an education for freedom of

thought, while UNESCO also notes that freedom of thought is a fundamental right stated in the United Nations Convention on the Rights of the Child. None of the other approaches can claim to develop such freedom of thought in moral reasoning, and hence an inquiry ethics approach is necessary to fulfil the demands of the declaration. This also is a strong argument for the importance of this approach in educating for quality of life of the students. Moreover, it has been argued, for example by Tozzi (2009), that practicing inquiry ethics helps children to deal with difficult issues and that it has a therapeutic virtue. Also, there are reasons to believe that engaging in inquiry ethics is a good means to fulfil certain personal potentialities (cf. Murris, 2008), which seems reasonable to consider connected to living a good life. Moreover, studies have shown that students engaged in such dialogues gain in self-esteem (Gorard et al., 2015; Trickey & Topping, 2006), self-confidence (Malhester & Ohlsson, 1999) and emotional growth (Trickey & Topping, 2004). Fisher notes that talking and listening promotes the development of our abilities to think, and further claims that the "quality of our lives depends on the quality of our thinking and on our ability to communicate and discuss what we think with others" (Fisher, 2007, p. 615).

An important aspect of living a good life related to ethics in school seems to be the ability to make good choices in one's life, like choices regarding technology and technology use. Such choices could include choices concerning mostly oneself, like whether or not to invest in the most recent technology in a certain field, choices with consequences for others or our shared world, such as what technological products to consume with regard to their social or environmental influence, or choices between possible political resolutions about technology and technology use. Schools should help students develop these abilities, and the inquiry ethics approach seems most promising in realising the aim of helping students develop the decision-making abilities needed for these endeavours. Semetsky (2009, p. 78) also gives support to the inquiry ethics approach when saying that "[l]earning what to do and how to behave implies decision-making and choosing intelligently and ethically between alternatives." She continues by drawing educational implications of this: "The need for developing a sense of value judgements – rather than simply learning a given set of values – is what moral education should focus on" (Semetsky, 2009, p. 78). Indeed, this seems to give a better support to the argument in question. Hence, we can conclude that the inquiry ethics approach renders the quality of life argument strong.

The tool argument

The descriptive ethics approach seems unable, once again, to render this argument strong. It seems that learning facts about the behaviour of others does not have a very strong direct implication on the learning of other school subjects in general. However, it seems reasonable to believe that it has some positive impact on, for instance, social studies. This means that the descriptive ethics approach gives a rather weak support for the argument, being a general argument, not specifically about social sciences.

The second approach, the value transmission approach, also seems rather toothless in rendering this argument reasonable. Of course, one can argue that if values such as that students should do their best and work hard and pay attention to what goes on in school (and so on) were transmitted to the students, then their learning, in general, may benefit. However,

this is problematic for at least three reasons. The first is that the student can always "resist" the transmission attempt, possibly as a consequence of feeling pushed or forced by the school to act or think in a certain way. The second is that even if the value transmission is successful, it is possible that other influences transmit other values to them, thereby cancelling, thwarting or reversing the effect of the value transmission from school. The third problem is that the traits at stake seem difficult to acquire through transmission, at least in a sustainable and long-term sense. Moreover, an important part of how ethics could benefit the learning of other subjects is by helping the students acquire critical thinking and inquiry skills (Dill, 2007; Lovat & Clement, 2008), and that means that they ought not to accept whatever values people try to transmit to them, so to speak. Hence, it is hard to see how one can be forced into critical thinking or having critical thinking transmitted to oneself. An analogy would be that it seems hard to force someone to resist force. Moreover, there are reasons to believe that these positive character traits are best defended by, and upheld by, the students if they actually have reasons for acting as they do, and are not only doing so due to value transmission. Hence, the second approach does not seem very successful in rendering the argument strong, and therefore gets a rather weak valuation.

The third approach, on the other hand, seems able to give support to this argument as well. Educating in ethics in this sense, the critical and evaluative sense, seems likely to benefit learning in general, because students, according to many studies as we will see more below, and as reviewed by Trickey and Topping (2004), acquire important abilities such as critical thinking, logical thinking, as well as argumentative and evaluative skills (García-Moriyón et al., 2005; Topping & Trickey, 2007a; 2007b; Trickey & Topping, 2004). These skills are of utmost importance to education in general, and it has been shown that students participating in philosophical dialogues show gains in intelligence (Barrow, 2010; Colom et al., 2014; Topping & Trickey, 2007) and academic performance (Fisher, 2001; Gorard et al., 2015; Murris, 2014; Topping & Trickey, 2007a; 2007b). For example, developing critical thinking and logical thinking can benefit learning in technological and scientific subjects. Research has shown that philosophical dialogue at an early age has positive impacts on, for instance, problem-solving skills and logical reasoning skills (Trickey & Topping, 2004), which in turn are needed for mathematical thinking and reasoning (which has also been shown to be positively influenced by inclusion in philosophical dialogs, as we have seen above) which are applied in technology. Importantly, the inquiry ethics approach differs from the value transmission and descriptive ethics approaches in these respects, in the way that it develops reason, and this strength, in light of the universal support for reason as an educational aim noted by Frímannsson (2016), is one way of explaining why the inquiry ethics approach succeeds better in making the tool argument stronger than the other approaches. Hence, this argument seems strong if we understand ethics in school in accordance with the inquiry ethics approach.

Let us finally return to the discussion about the STS approach to technology education, which showcases the way an inquiry ethics approach could benefit other subjects as well. As noted in the background, there are strong initial reasons for implementing an STS approach to technology education, because traditional technology education has been lacking in several ways, and because an STS approach has a promise of making students more interested in

technology and science education, for contributing more to good citizenship than the traditional approach could, for helping students take care of our planet in years to come, and for its superior promise of training students in critical and creative thinking, which is of utmost importance to future scientists (in which case an STS approach would actually excel over the traditional approach even in the main aim of the traditional approach itself!). Now, the problem is that research has shown that more or less nothing of this is happening within an STS approach. First of all, not many implementations are actually made, and one suggested explanation of this is that it is so unclear what it would consist in, and another is that teachers are uninterested in, and does not feel confident in, the core contents of an STS approach. And in case it is implemented, neither students nor teachers understand the contents of the STS approach. And students are not becoming more interested in science and technology although they show an interest in questions relating to science and technology, but not necessarily within its core as traditionally understood. And the STS approach does not succeed in developing the students' critical thinking, their logical reasoning or their creative thinking and curiosity about the natural world. But this is what would be suspected to be the result of a monologic approach to the STS education. The results shown to come from a dialogic education in general, and an inquiry ethics approach modelled on the philosophy for children methodology in particular, bears promise to counteract several of the above problems. First of all, it presents a quite clear methodology to the STS approach. And second, it has been shown to increase student engagement, to help students develop not only critical thinking and logical thinking skills, but also creative thinking and curiosity. Hence, it seems to be an interesting candidate for elevating an STS approach to technology education.

What do the three arguments show?

To sum up what has been said about the three (nine) arguments so far, we can once again use a table, but this time, we insert the results obtained from the reasoning above, resulting in Table 8 below:

Table 8. Evaluation of the arguments.

	Descriptive ethics	Value transmission	Inquiry ethics
Citizenship argument	Intermediate	Rather weak	Strong
Quality of life argument	Weak	Intermediate	Strong
Tool argument	Rather weak	Rather weak	Strong

The evaluation shows that these arguments best support the inquiry ethics approach to ethics in school. Every argument is stronger given the inquiry ethics approach than given any other approach. And the value transmission approach is stronger than the descriptive ethics

approach, the value transmission approach being stronger in two of the arguments and they both being as strong in the third.

As we have seen, the three arguments here discussed are strongest (and indeed strong) if "ethics in school" is interpreted as inquiry ethics. Therefore, we have three strong arguments in favour of the inquiry ethics approach, and less strong arguments in favour of the value transmission approach and even weaker in favour of the descriptive ethics approach. This suggests that we should have inquiry ethics in school, in technology education and in general. Furthermore, it suggests that we should have that more so than descriptive ethics or value transmission. However, this does not (in itself) imply that we should not have ethics in school in the other forms *as well*. For example, as we have seen, there might be reasons for having some descriptive ethics, both for learning inquiry ethics and for learning such subjects as social science, where people's ethical beliefs are an important part of understanding other facts in the subject, and also technology if an STS approach is taken (such as is the case with such goals of the Swedish Technology syllabus as "How cultural attitudes towards technology have an impact on men's and women's choice of occupation and use of technology."). Moreover, it should be noted that it might be possible to give other strong arguments on the topic, some of which might give stronger reasons for including value transmission or descriptive ethics in school. Hence, further research in these matters is of great importance and interest. Nonetheless, the arguments considered here give us reasons to hold inquiry ethics to be the most important of these three different approaches to ethics in school.

Ethics in school and metaethics

I have stated above that the idea that it should be open for the students to accept different moral values was not compatible with the value transmission approach (a statement that will now be discussed and evaluated closer). But it seems that it is compatible with an inquiry ethics approach. This leads to the question of how the approaches to ethics relate to different metaethical positions. I will discuss the compatibility between the approaches and two different theories, namely realism and relativism.

Inquiry ethics and metaethics

Let us start with turning our attention to the inquiry ethics approach, and investigate its relation and degree of compatibility with realism and relativism, in turn. If inquiry ethics is compatible with the pedagogical view that it should be open for the students to accept different moral values and to take different moral stances, then one might wonder if inquiry ethics is compatible with moral realism. One might argue along the following lines: If moral realism is correct, then shouldn't school strive for students to take the correct moral stance and accept the true moral values, those that actually exist? If so, is it possible to accept an inquiry ethics approach? But it seems that this would be a too hasty conclusion, and that an inquiry ethics approach to ethics in school is indeed compatible with moral realism, at least together with some other views which it is reasonable that a realist holds.

First, even if realism is correct, and even if one indeed believes that it is correct, if one is a moral sceptic,[154] an inquiry ethics approach is an option. If we cannot know what the correct moral values are, then how can one reasonably decide that all students must accept this or that set of moral values? It seems, then, as if inquiry ethics is as good an option as value transmission. (And there might be other reasons, besides directly moral ones, that can speak in favour of the inquiry ethics approach, as discussed concerning the ethics as a tool argument (see "Three arguments for ethics in school"), to the extent that there can be any arguments or reasons in favour of doing anything, in case one is a moral sceptic.) And this opens up to a more general conclusion regarding realists and moral epistemology. If one is not a sceptic, at least one might be humble enough to believe that one might not oneself have reached total moral knowledge (even if such knowledge would, in theory, be possible). That is, the realist might believe that moral knowledge is possible, but also believe that she herself may be in error regarding what moral values would be the correct ones, at least regarding some of the values. (Indeed, this is the view of all non-sceptical realist I know of.) Let us call this view a *fallibilist realism*. And if a realist takes such a fallibilistic view, an inquiry ethics approach to ethics in school seems very reasonable. Instead of making the students come to believe the same things as she does, her disposition to question her own views and the insight that she might be in moral error would lead the realist in this scenario to want students to learn to think for themselves about ethics, hopefully to come to believe the same as she does, but even more hopefully to come to believe in the most reasonable position, meaning that the student would believe something else, if that position is more warranted – and in such a case, it seems that she has something to learn herself.[155] And third, even if one accepts realism and is bold enough to believe that one has all moral knowledge oneself (I do not know who would be this confident, though), one might still want to take an inquiry ethics approach, because one might believe that this is the best way, pedagogically, to reach the goal of the students gaining moral knowledge themselves – one might think that this would not only be a way for students to, under the guidance of teachers, reach the correct moral positions, but moreover the best way to ensure that they keep to these moral values, because they had acquired the reasons and arguments in favour of their views, which would mean that they were grounded in a way that made them more sustainable than if one had merely transmitted the values to them. And if she was in fact wrong in her belief that she had moral knowledge, then it would still be possible that the students through their own reasoning could come up with values that

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[154] That is, if one believes that it is not possible to have moral knowledge. And, as far as I can see, moral scepticism is compatible with moral realism.

[155] An analogous argument is the reason that many realists in general want students to learn to think for themselves about other matters, such as relating to science, to learn critical thinking in general and to learn methods of finding and evaluating information for themselves, as opposed to blindly trusting in everything that the generations before them have said. Indeed, such a condition seems necessary to the growth of knowledge and the progress of society, it seems, and I take it that this view is close to what Dewey would have held, for example.

are more well grounded than hers. The bottom line is that it is possible, indeed reasonable, for a moral realist to embrace an inquiry ethics approach to ethics in school.[156]

Let us now turn to the question of the compatibility of the inquiry ethics approach and moral relativism. It might first seem that inquiry ethics is not very compatible with moral relativism. In the case of moral relativism, fallibilism isn't as reasonable as regarding realism. In case of a subjectivist relativism, where everybody has her own moral truths, it seems difficult to say that the subject herself can be in grave error about what her own moral truths are; after all, according to such a subjectivist view, the truth is whatever she holds to be true (or something similar). Why, then, engage in inquiry ethics? And regarding some kind of cultural relativism, it might seem that similar arguments against the inquiry ethics approach are possible. If the moral reality is determined by the group or culture, then it is fairly easy to work out at least the rough outlines of the moral truths, and then, why not just make sure that the students conform to these? But here, Dewey's ideas might again enter our discussion. Even if one is fairly correct about the current culturally given moral truths (granted that there are such, as the relativist holds), and therefore could transmit these to the students, we could not know, Dewey would possibly have argued, know what values will be cherished tomorrow. Not even if it is the group itself that will determine them. But then, it seems better to equip the students to be able to successfully deal with that situation, in which case some mix of inquiry ethics and descriptive ethics seems a promising educational option. Hence, inquiry ethics is not directly incompatible with, at least some influential versions of, relativism. On the other hand, it is not very strongly endorsed by relativism either.

Turning, finally, to the form of relativism that we can call subjectivism, according to which moral values are relative to single subjects, so that everyone has their own truth, and whether or not that view is compatible with an inquiry ethics approach. It seems as though they are not directly contradictory to each other, but it also seems that an important part of the rationale behind an inquiry ethics approach is diminished, since the benefit of being able to use one's inquiry and reasoning skills to obtain correct moral judgements seems diminished, since it seems that it would be quite easy to find correct moral values according to most versions of such a subjectivism, since whatever moral judgements one makes are true according to such a subjectivism, even if these would seem utterly unreasonable to others. Other benefits of an inquiry ethics approach, of course, such as the cognitive development, the development of skills and abilities, the benefits in prosocial behaviour and so on, might still be valued, and might constitute reasons for adopting an inquiry ethics approach for a subjectivist.

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[156] Perhaps a moral realist would frame the inquiry ethics approach slightly different, though, claiming that the aim of the inquiry ethics approach should be to help students come to true moral beliefs and values. This would, then, be closer to a value transmission approach than many other formulations of the inquiry ethics approach, but it would still not be a value transmission approach since no values are predetermined – rather, it is said that the aim is to help students come to true (or approximately true, or of high verisimilitude) beliefs and values, *whatever* these might be. Now, most many moral realist proponents would probably argue that the best way of making sure that the students not only came to uphold true or correct moral beliefs and values, but also keep on holding them, would be to give them tools in ethical inquiry, so these formulations (focusing on abilities or on ending up with true beliefs and values) would probably be more or less equivalent for many moral realist proponents of inquiry ethics. At least, those moral realist proponents of inquiry ethics formulated as the aim of helping students develop skills and abilities related to ethical inquiry would reasonably do so out of a belief that this would be a good (the best) way of helping them acquire true (or close to true) beliefs and values.

Value transmission and metaethics

Let us now move on to the value transmission approach and its relation and degree of compatibility with our metaethical theories. In discussing this, we will pay some attention to the value foundation, since such a device is likely part of a value transmission approach.

Above we have seen that it is possible for a moral realist to accept the inquiry ethics approach to ethics in school, but is it also possible, let alone reasonable, for a realist to embrace a value transmission approach? And indeed, the (over)confident type of realist discussed above would reasonably be able to embrace value transmission, and well so (as long, of course, as she does not, as was discussed above, think that an open dialog is the most pedagogically effective way of making sure that students learn the correct moral principles and come to hold them in as solid a way that they are resistant to irrational changes of these values). This is because if there is a set of moral truths, and we know about them, then it seems quite reasonable to codify these into a value foundation and make sure that students come to conform their moral thinking to these truths, through, in some direct way, making sure to transfer or transmit these to the students.

But there are problems with this, particularly the assumption that our current state of moral knowledge is sufficient, which is quite controversial. Rather, many realists would argue that there are moral discoveries yet to be made, just like in the case of science (where many realists would believe that the science of today often comes close to truth, but that there are still much to be discovered). And the view most suitable for moral realists, it seems, is that ethics in school ought to be treated analogously, because she would always question if the values she believes in are those that the students would indeed benefit from having transmitted to them, i.e., if they are correct. But she might still believe that the values she has come to accept have some merits (why else would she have the views she has?), and this might be reason enough for her to want to transmit them to the students, because she might believe that these values are better than any that the students might come to uphold by chance. On the other hand, she would probably want the students to be prepared to change these if they acquire better reasons, and such a value transmission approach would be weaker than what I have normally meant by value transmission, and than what I have interpreted proponents of value transmission to normally be aiming at. Maybe such a weak value transmission approach is indeed compatible with an inquiry ethics approach, and maybe it should not be considered a value transmission approach at all. Perhaps it is just the position that it might be prudent to start an inquiry with some set of values, with an idea that it might be good to have some prima facie moral principles (to be speaking with Hare), but that it, at the end of the day, is the critical moral thinking that is what we should be striving to help students acquire. And, as discussed elsewhere, such a development of a critical thinking about ethics might be increasingly hampered, the stronger value transmission that is employed.

The conclusion of this seems to be that a value transmission approach to ethics in school is indeed open for moral realists, but that on many (and the most reasonable) auxiliary assumptions on epistemology and pedagogy, an inquiry ethics approach seems more reasonable for the moral realist, while the value transmission approach, on the other hand, seems quite inappropriate.

A relativism of some form that has a culture determine moral truths (such that what is true is determined by the views in the culture in question) might seem to give strong support to value transmission and the formulation of a value foundation. Such a view would hold both that there are moral truths and that we have a good chance of knowing them (on many such relativist accounts, at least, since this comes down to finding out what the opinions of people in the culture in question are, or something like this). Hence, the argument goes, on such a relativist view there should be value transmission in school, to transmit these moral truths to the students. But, there are two problems with this line of reasoning.

First, as discussed above in relation to realism and the value transmission approach, there still might be pedagogical reasons not to have a value transmission approach. As noted on several occasions above, even if there are moral truths and we have good reasons to believe that we are aware of them, it might be best to let students acquire the skills needed to reach a reasonable moral system for themselves, instead of straightforwardly transmitting these values to them.

Second, and more importantly, there is an objection based on an insight from Dewey, that the customary morality is based on the past and current society and conditions. And certainly, this is applicable to the kind of relative moral truths here under consideration. But the students are the citizens of tomorrow, not yesterday or even only today, so (especially in times of changes in society, such as ours) there are reasons to believe that this customary morality will not be fitting for their lives. And this is certainly a view in line with the kind of relativism discussed. Hence, even if one takes the view that we can identify and try to transmit the moral values of today (although it should be noted that Colnerud and Thornberg's objection still seems valid here) to the students, there is no surefire way of giving them moral values appropriate for their lives. This is a very powerful objection in relation to the form of relativism here discussed, and hence it turns out that moral relativism is not a good foundation for a value transmission approach, after all. Moreover, Colnerud and Thornberg (2003), in reviewing international literature in the field, conclude that given value relativism, schools cannot claim that there are some inalienable values, neither can schools claim that the value foundation has any solid ground. But these are central claims to the value transmission approach, and it seems, then, in their picture, that such an approach is unfitting with a moral relativism. Furthermore, they connect these problems to teachers' growing insecurity concerning ethics education.

It can also be noted that the form of relativism that we can call subjectivism, according to which moral values are relative to single subjects, so that everyone has their own truth, also seems to be incompatible with a value transmission approach since, if everyone has their own moral truths, how can it be justifiable to transmit a certain set of values to (all of) the students? It seems that value transmission is a poor option for such subjectivists.

Descriptive ethics and metaethics

Let us now turn our attention to the descriptive ethics approach. It seems that the scepticist version of moral realism, which, as noted above, does not give very strong support to either the inquiry ethics or the value transmission approaches, could give a slightly stronger support

to the descriptive ethics approach, in the sense that it is at least not contradicted by the metaethical theory. And likewise, the descriptive ethics seems neither to be strongly contradicted or supported by the other versions of moral realism either.

Let us now turn to moral relativism. It seems a descriptive ethics approach is actually quite reasonable given a moral relativist view. Studying the moral views and opinions of people in one's own culture is indeed, in this view, a way of approaching the moral truth (because what people believe in some sense determines what is true), and studying the views and opinions of people in their cultures is relevant to finding out what is morally true "for them." In fact, it seems that the descriptive ethics approach is even more appropriate given the moral relativism position here discussed than any of the other approaches. And if, in this view, moral truths can change with changes in culture, a mix of inquiry ethics and descriptive ethics seems a good choice, were this form of moral relativism to be correct (albeit that it seems not to be).

The approaches to ethics in school and metaethics

I will here briefly summarise what has been found above. In the case of moral realism (some extreme versions of it aside), it seems quite clear that an inquiry ethics approach is the most reasonable one. In the case of a subjectivist relativism, on the other hand, it seems that neither inquiry ethics nor value transmission are reasonable (nor is it easy to see the value of a descriptive ethics approach for such a view). For other kinds of relativism, perhaps surprisingly, value transmission does not seem promising, but a mix of inquiry ethics and descriptive ethics might be a more fitting match.

Must education include value transmission?

As we have seen above, there is an old discussion concerning whether or not education must include some values (i.e. if it could be value neutral), whether or not education is inherently normative. Connected to this discussion, there is also the discussion over the correctness of the even stronger claim that education must contain some value transmission. And this is a bit troubling, since we have seen above that the value transmission approach does not have as much speaking in favour of it as the inquiry ethics approach has, and the two are interpreted as contradictory to each other.

The committee responsible for the value foundation seems to have been of the opinion that education indeed must include value transmission. (cf. Hörnqvist & Lundgren, 1999) For example, they state that "all education involves fostering in some sense" (Hörnqvist & Lundgren, 1999, p. 12) and on the same page, concerning the "fostering assignment", that "fostering [is] to transmit foundational values, rules and action competence" (Hörnqvist & Lundgren, 1999, p. 12). It seems that there are two main reasons given in the text in favour of the view that education must include value transmission. The first is that school can never be value neutral, and the second one is the growing value plurality and rapid changes in society. These two arguments, they seem to have thought, necessitate the value foundation and the value transmission view that school must always take its departure from, respect, and transmit these values to the students. Let me start with the second argument first, the argument

concerning value pluralism and the rapid changes in society. Green claims that as "western countries, somewhat reluctantly, began to acknowledge the growing diversity and cultural pluralism of their populations, they found themselves uncertain of what their nationality meant and what kind of citizenship should be produced by their schools" (Green, 1997, p. 143). As a consequence, many have responded with a call for more value transmission, and the Swedish educational system is one example. (Norberg, 2001) Interestingly, Dewey in his time, noticed the same tendencies regarding change and pluralism in his society. But his conclusions are the opposite of those of the committee. His conclusion was that customary ethics cannot, almost by definition or necessity, be appropriate for such times. Instead, moral inquiry is the only way of moral reasoning that he sees as fitting for such a challenge. And Colnerud and Thornberg can be seen as giving another counter argument, by pointing out that in the case of value plurality, any value foundation must stand in conflict with at least some people's values (at least as long as the value foundation concerns those values among which there are different views – but if it doesn't, then how can the existence of value pluralism be an argument for the need of value transmission?), and this might have moral implications, concerning justice, but also questions regarding how values should be chosen for inclusion in the value foundation. Norberg (2001, p. 373) raises a similar objection, in asking the following question: "[h]ow can social values be promoted in common schools, without excluding those who do not share these values?"

The other part of the argument, that school can never be value neutral, is challenged by the distinction drawn by Lipman (cf. 1980) between substantial values and procedural values, as discussed above, and again connecting to Dewey's ideas of moral inquiry. The values included in the value foundation, that all people are equal in value and the inviolability of human life, for example, are both substantial values. But there are also procedural values, such as the principle that ideas should be evaluated based on arguments, not based on who proposed them, or the principle that values should be discussed and scrutinised. These kinds of values, procedural values, govern the way a certain procedure should be carried out (within school). They are values that are needed for certain activities to be carried out. But they do not necessarily hold outside of that context, and they are not concerned with just any behaviour. They are not typical moral values. And as noted, it seems that education could be carried out without including substantial value transmission, even though it might include the transmission of, or at least (temporarily) lean upon the use of, procedural values. Hence, it seems that from the premise that schooling touches upon values, and reasonably good education has consequences regarding values,[157] it need not be that school includes value

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[157] A successful inquiry ethics approach would quite certainly have consequences regarding values. Students would, if they developed their abilities in moral reasoning, most probably come to value differently than had they not been educated in such a way. And studies have shown that children engaging in philosophical dialogs develop democratic values and dispositions (not only democratic skills and abilities) (Barrow, 2010; Fischer, 2007), that they develop respect for others and tolerance (Malmhester & Ohlsson, 1999; Murris, 2014), for example. This is probably in part because the setting itself is deeply democratic and contains these values (Glina, 2009; Rollins, 1995), and therefore constitutes a good example of the reasonableness of these democratic practices and values. And this is important, because the changes in values due to the engagement in an inquiry ethics approach is likely to be due to the reasonableness and merits of these values and views, not due to anyone having decided that these are the values the students are supposed to come to appreciate. This, in turn, means that the kind of way in which students come to uphold these values is a genuine one, a deep form of integration of values, the one which is often by researchers in social psychology described as the strongest one (Forsyth, 2009).

transmission. Interestingly, also, such an education seems much more in line with the ideas of *bildung* and enlightenment defended by Kant.

It should be noted, for clarity, that besides procedural values, a school which utilise inquiry ethics but no value transmission can, of course, have rules of conducts and other principles that students and staff are to abide to in school, just as there are laws in society that people have to follow, without the existence of such laws thereby forcing people to be of certain moral opinions. And people might be of the opinion that one ought to follow the laws, even if one does not accept them on a moral basis (at least to a certain degree). Likewise, people might accept to act in accordance with rules of conduct in certain situations, even though they might actually think that one should be allowed to act otherwise. For example, one respects a friends wish to take one's shoes off when entering their house, even if one believes that ones shoes are clean and that it would actually be OK to wear them inside, or one might take ones hat off when visiting ones grandparents, even if one believes that it permissible to wear hats inside. Likewise, one could accept the rules of conducts of the school, even if one does not uphold them as *moral* rules or principles, if it is transparent and clear that they are only to be seen as rules of conduct in that context. Hence, schools could clearly state that it is impermissible for students to hit each others (in school), without thereby supporting the moral judgement that violence is always wrong. Thereby, it could still be a contestable question whether war can sometimes be justified, for example. Hence, schools could have policies, rules of conduct and principles that each and everyone in school should follow, without thereby engaging in value transmission.

The pedagogical merits of the approaches

Now the time has come to summarise the pedagogical merits of each of the approaches, do a comparative evaluation of them, and answer the question of what merits and disadvantages the approaches have, and what conclusions can be drawn. This is even more important due to the seeming incompatibility of the approaches, which demands that it needs to be decided which of the approaches is to be implemented in school, and such a choice, if it is to be rational, must be made based on a comparative evaluation of the pedagogical merits and weaknesses of the approaches.

The pedagogical merits of the descriptive ethics approach

As we have seen, the descriptive ethics approach is the approach which is the least incompatible with the other approaches. Especially regarding the relation to the inquiry ethics approach, the descriptive ethics approach could be taken (to some degree, and as a complimentary source) together with the inquiry ethics approach. This is also one of the greatest merits of this approach.

As we have seen, the descriptive ethics approach does not succeed very well in rendering any of the three discussed arguments for ethics in school – the socialisation argument, the quality of life argument, and the tool argument – very plausible, and neither does it seem as a reasonable candidate for grounding a pedagogy capable of counteracting the influence from

extremist and radical ideologies on youths online. Similarly, it is difficult to see how a descriptive ethics approach alone could be the foundation of a pedagogy for teaching students safe online behaviour in general. The descriptive ethics approach is also not very prominent in the national curriculum for Swedish compulsory education.

The above remarks support the conclusion that the descriptive ethics approach does not have the merits to be the sole approach to ethics in school. In summary, this means that we have fairly weak reasons for taking a descriptive ethics approach to ethics in school. But this should be understood with the reserving clause that it might be taken as a supplementary approach to some other approach, especially the inquiry ethics approach.

The pedagogical merits of the value transmission approach

As we have seen, one of the strongest merits of the value transmission approach is its immense support from educational theorists, and its historically strong place in education. It also enjoys strong support from the national curriculum. And the claim that education cannot be free from value transmission would also be an extremely strong merit, if it were true. Other merits include the supposition that the value transmission approach has a key role in the education of democratic citizens for good citizenship.

But as we have seen, the value transmission approach in fact does not seem as a very good candidate for citizenship education after all. It renders both the citizenship argument and the tool argument rather weak, and fails to render the quality of life argument more than intermediately strong. It fails to meet crucial challenges of contemporary education, such as to educate for resistance against extremism and to educate for safe online behaviour in general. A value transmission approach to ethics in school is in conflict with a dialogical pedagogy in general, which has a myriad of pedagogical merits. And with Dewey it could be argued that a value transmission approach is inherently ill suited for helping the students face the future, which indeed seems to be a key aim for education.

Turning to the would-be decisive argument that value transmission is unavoidable, it seems that such a position, although very common, rests upon several misconceptions about ethics and education. One of the key such misconceptions is the failure to distinguish between what we, with Lipman, can call substantial value fostering and procedural value fostering. Hence, value transmission is not unavoidable or necessary for education.

It should also be noted that the fact that a certain position enjoys widespread support is reason to take the position seriously and investigate its merits and demerits, but it is not very much (if any at all) reason for its correctness. Hence, the fact that the value transmission approach has been historically widely endorsed does not give us much reason to implement it in the future, if it lacks independent reasons speaking in its favour, which it largely seems to do (as far as the material covered in this thesis go, at least).

More importantly, it is a considerable weakness of the value transmission approach that it seems incompatible with the inquiry ethics approach. This means that the merits and demerits of both these approaches need to be compared, and the approach with more speaking in favour of it (and less in disfavour of it) is the one that we are rationally required to implement.

In total, this means that, seen in isolation, we lack strong reasons for taking a value transmission approach to ethics in school, and have some quite strong reasons against doing it, but its seemingly contradictory relation to inquiry ethics means that we cannot fully answer this question until we have summarised what merits and demerits the inquiry ethics approach has.

The pedagogical merits of the inquiry ethics approach

Turning now to the merits and weaknesses of the inquiry ethics approach to ethics in school, we can note that it enjoys a strong support from the national curriculum. Moreover, it renders all the three discussed arguments for ethics in school – the socialisation argument, the quality of life argument, and the tool argument – strong, and hence this speaks strongly in favour of the inquiry ethics approach. It also succeeds very well in being the foundation for a pedagogical effort to counteract extremism, and it seems to give good support for an education for online safety in general (at least to the extent that the value transmission approach does not). The inquiry ethics approach fits very well indeed with a dialogic education approach in general, and hence inherits the merits that such a pedagogical approach has, as discussed above. With Dewey, it could be argued that the inquiry ethics approach is also the only approach that can be said to provide a good basis for the student to handle the future. And we have seen reasons for holding it to be the only approach viable for a democratic education. Moreover, as UNESCO (2007) points out, it is an approach – and it seems to be the only one – capable of answering to the aim of educating the students to freedom of thought (at least concerning ethics), and this is seen as one of children's universal rights. Hence, the inquiry ethics approach has many strong merits speaking in its favour.

Among the demerits of this approach is that it might be difficult for the teacher to deal with some of demands of an inquiry ethics approach (cf. Haynes & Murris, 2011), for example letting what can sometimes be regarded as "difficult" discussions take place in the classroom, or equalising (at least to some degree) the typical hierarchies of the classroom, or making room for an open dialogue in which students might raise questions to which the teacher does not have an answer (at least at the moment). All these problems could be overcome, though, according to research and literature in the field of dialogic education (cf. Haynes & Murris, 2011; Lipman, 2003; Lipman et al., 1980; Strömberg et al., 2012).

The most significant demerit of the inquiry ethics approach is its incompatibility with the value transmission approach, as noted above. This means that they cannot both be practiced, and this also means that the incompatibility is a demerit for that perspective which has the least speaking in favour of it, and most speaking in disfavour of it, this demerit aside. That means that we need to make a comparative evaluation of these approaches, but it is quite obvious from what is said above that the inquiry ethics has more speaking in favour of it, and less against it, then the value transmission approach. Hence, the incompatibility of these approaches is a demerit to the value transmission approach, not to the inquiry ethics approach.

Summative evaluation of the pedagogical merits of the approaches

In summary, the inquiry ethics approach is the approach that has most speaking in favour of it, and moreover (perhaps together with the descriptive ethics approach) the least speaking in disfavour of it. Hence, inquiry ethics has the strongest merits of the approaches. This further means that the incompatibility of the value transmission approach and the inquiry ethics approach is a huge demerit of the value transmission approach. And this incompatibility further suggests that the value transmission approach should not be taken in school, since the inquiry ethics approach should be taken, due to it having the strongest merits, as far as the material in this thesis is concerned. The question that lies open is whether the inquiry ethics should be the sole approach or whether it should be complemented with a descriptive ethics approach. I think this is a question for future research and analysis.

How to approach ethics in school?

In the Swedish educational system, ethics is not a subject of its own. Instead, it runs as a perspective throughout the educational system. But is this the most reasonable way of treating ethics in school? It seems there are, with regard to this distinction, four possible different setups: There could be no ethics in school, there could be ethics only as a perspective, there could be ethics only as a subject of its own, and there could be ethics both as a perspective and a subject of its own.

In the English educational discourse, it is quite common to speak of the three Rs (of which only one is a proper "R word"): reading, writing and arithmetic. These three Rs represent three skills that are traditionally seen as basic skills that children are supposed to learn in school. These three skills are seen as over-arching perspectives that should be observed in all of school (especially the first two). But the fact that reading is of importance to most of school, and in a sense is practiced in most of the educational practices and most parts of school, does not mean that reading isn't also practiced specifically in certain situations. Indeed, most educational systems have a special subject (or a few, for different languages) that deals with reading and have time specifically devoted to learning and practicing reading. There is also proponents for the idea to include a fourth R, reasoning, (e.g. Weinstein & Laufman, 1981) signalling an effort to further what is often called students' higher cognitive abilities (cf. Tsui, 1999). An inquiry ethics approach to ethics in school would contribute to such an endeavour.

Lundgren and Söderberg (1999) state that they

> strongly lean toward the view that the moral domain must be seen as an area of competence in itself with the implications that the reflective competence, i.e. the ability to argue for and apply the values one has internalised emotionally, regardless of what these values are, ought to be already present in the early years of education. This becomes even more important today against the background of the reality of multiculturalism and value pluralism that the youth will live in. (Lundgren & Söderberg, 1999, p. 74, my translation)

Although this is a strong stance in favour of ethics in school, and inquiry ethics in particular, it is unclear whether or not this implies teaching and studying ethics as a subject in itself or only as a perspective within other subjects. If anything, though, it seems to speak in favour of having ethics as a subject of its own, since if something is an area of competence in itself, and it is as important as ethics is (to education and in general), then it ought to be treated (at least in part) as a subject of its own.

In the following, I will briefly discuss each of the four above mentioned possible stances towards whether or not there ought to be ethics in school, and if so, whether it should be treated as a perspective or a subject of its own, or both.

Against ethics in school

There are, as we have seen, some reasons for not having ethics in school. For example, Kåreklint (2007) holds the view that it is impossible to be an ethical expert, and this ought to be a reason not to have ethics in school. But the distinction between our three approaches to ethics in school is useful in highlighting some problems of such a view. Since ethics could be dealt with in at least three senses, this argument would have to come in three different forms, one against each of the approaches to ethics in school. And for descriptive ethics, it seems that it is certainly possible to be an expert: social scientists do descriptive ethical studies, so it is reasonable to assume that it is possible to have quite a vast knowledge about descriptive ethical facts, and hence be an expert in ethics, in the descriptive ethics sense. With regard to inquiry ethics, it also seems that one can have more or less knowledge and more or less skills; that it is possible to reason better or worse about ethics seems to be a requirement for there to be research in philosophical ethics, and indeed there is quite a lot of such research. People are awarded doctoral degrees, professorships, grants, and so on, in (philosophical) ethics, and this would not make sense if expertise in inquiry ethics would be impossible. But it does. Hence, it is not impossible to have such expertise. And Kåreklint also seems to be of the position that discussion about ethics in school is possible. What he seems to have in mind is that it might be impossible to be an ethical expert in the value transmission sense, and moreover he seems to think that a value transmission approach is unavoidable. And indeed, this seems to be (as we have seen several times throughout this thesis) the approach with regard to which it seems most difficult to state that someone is an expert. But, at most, this shows that there should be no value transmission in school, but it does not show that there should be no ethics in school, since we have seen above (see "Must education include value transmission?") that the assumption that value transmission is necessary is mistaken.

And, as has been evident above, there are indeed several very strong reasons in favour of having ethics in school. Hence, the position that there ought to be no ethics in school can be excluded from further discussion.

Ethics only as a perspective

To defend the view that ethics should only be a perspective, but not a subject of its own, one needs first to argue that it should indeed be a perspective, and then that it should not be a

subject of its own. The obvious argument for having ethics as a perspective for all of school is, as the people responsible for the decision to choose this option for the Swedish educational system seem to have held, that ethics is actually of importance to all of school. And this is so for several reasons and in several ways, as we have seen. It seems quite clear, not the least from the tool argument discussed above, that ethics should be an overarching perspective in school. Now, does that mean that it should not be a subject of its own? No, the fact that ethics is important to all of school is an argument for having ethics as a perspective, yes, but it is not an argument for only having ethics as a perspective. That is, the fact that ethics is of importance to all of school does not mean that it should not also be a subject in itself. It only means that it should at least be seen as a perspective, but potentially also as a subject of its own. Again, compare it to reading or writing, or history. History is also considered an overarching subject in the Swedish school, but it is also a subject in its own right. And while reading and writing is important for most of school, they are still practiced in themselves in the subjects of Swedish and English (and, for some students, other language subjects as well). Hence, this gives us reason to believe that ethics should still be considered an overarching perspective in school, but the question of whether or not it should also be a subject of its own is yet to be discussed.

One initial argument against having ethics as a subject of its own, of course, is that there is a reason for conservatism; new subjects should be added only if there are any reasons for doing so. And while this is reasonable, it only speaks in favour of having ethics only as a perspective if there are no arguments in favour of having it as a subject also, and such arguments will indeed be scrutinised below.

Another argument against having ethics as a subject of its own is the costs involved with doing so. There would have to be teachers who were responsible for it, and that would be a cost. But this is a quite weak argument, for at least two reasons. First, it has been shown that at least a philosophy with children approach can be implemented with a very low cost (Colom et al., 2014; Gorard et al., 2015; Trickey & Topping, 2004; Topping & Trickey, 2007a), and hence there are cost-effective ways of implementing an inquiry ethics approach, and which has been shown to have an extensive set of benefits. Second, the argument is weak because such costs, besides being low, are also mainly costs in the short term perspective; they are concerned with the transfer from the present to the novel situation. There are always initial costs with changing the status quo, but if there are also benefits, these might soon tip the scales in favour of the change. So, again, this hinges on the strengths of the arguments in favour of also having ethics as a subject of its own.

Ethics only as a subject of its own

What reasons are there for having ethics as a subject in its own, or as part of a larger subject, such as a philosophy subject, that had a special responsibility for, and focus on, ethics? Arguing for that position would have two parts: first to argue that there ought to be ethics as a subject, and second to argue that there ought not to be ethics as a perspective. But, as we have already seen, it seems reasonable to hold that ethics ought to be a perspective. And within the material of this thesis, I cannot find any strong arguments for claiming that it should not. So

the position that ethics should only be a subject of its own seems not to be very promising. Then, either ethics should only be a perspective, or it should be both a perspective and a subject of its own. Let us therefore turn to this question below.

Ethics as a subject and a perspective

Thus far, we have seen that there are strong reasons for having ethics as a perspective. And in fact, the very argument that ethics ought to be a perspective also constitutes an argument for having ethics as a subject in itself, alongside also having it as an overarching perspective. Let us once again consider the subject and overarching perspective of history. It is stated in the curriculum that a historical perspective should be established in all of education, since it "enables pupils to develop an understanding of the present, and a preparedness for the future, and develop their ability to think in dynamic terms" (Swedish National Agency for Education, 2011a, p. 11). But part of the thinking behind also having History as a subject in itself is reasonably that this furthers the students' ability to have a historical perspective in the rest of education – without a dedicated history education it might be difficult to uphold the historical perspective in education in general, or at least to do it sufficiently well to fulfil the purpose of it. Hence, the subject strengthens the overarching perspective. It is reasonable to assume that the same is true of ethics. Indeed, it is stated in the curriculum, that "[a]n ethical perspective is of importance for many of the issues that are taken up in the school." This means that learning ethics would contribute to the overarching ethical perspective, and hence would be beneficial to all of school (not to mention the *ethics as a tool-argument* discussed above).

There are four overarching perspectives described in the general sections of the curriculum, and these perspectives are the historical, the environmental, the international, and the ethical (Swedish National Agency for Education, 2011a). In this context, it is interesting to note that while these are all considered overarching perspectives, which are of relevance to all of education (or most of it), the first three all have subjects which are dedicated to teaching core skills and knowledge related to them. As we have seen above, for example, the historical perspective is accompanied by the History subject. And the environmental perspective has core skills and knowledges related to it that are treated in the science studies. The international perspective similarly has core skills and knowledges related to it that are treated

in the social science studies. But the ethical perspective is the one exception.[158] This also speaks in favour of having ethics as both a subject of its own and a perspective.

There are also more arguments for having ethics as a subject of its own. The first is the complexity of the subject, as has been evident in the results and discussions throughout this thesis. As long as all three approaches to ethics in school are taken, it is a very demanding task for teachers to i) deal with all of these, each of which places quite different demands on the teachers, and even more ii) to be able to separate all of them and their different tasks and demands. This task would be at least diminished if ethics was also a subject of its own, because some of these demands would then be placed upon that subject in particular, and hence would be somewhat relieved from the rest of the educational practices. Hence, having ethics as a subject in itself might be at least part of the remedy for some of the problems discussed above.

But even if one or two of the approaches are removed from the educational system, there still are several reasons for having ethics as a subject. As we have seen, prior studies have shown that teachers find it difficult to work with ethics in their ordinary teaching practices, and this means that it could be beneficial to have a specific topic in which some of these could be taken. Research has found that teachers, even when participating in projects where there are more clear guidelines as to how to approach ethics, teachers with regular teacher education finds it difficult to facilitate dialogs of the relevant kind. (Ohlsson & Sigge, 2013) As it now stands, there is a great risk that much of what needs to be done in regard to ethics never is done, because there is no specific time when it should be taken and no specific responsibility taken for it. And this is also what has been found in several prior studies, as shown in the background. For example, a recent study (Gorard et al., 2015) found that the teachers involved noted that the philosophical dialogs had to be incorporated into the timetable on a regular basis, or else it would have been crowded out. This does not necessarily

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[158] To some degree, it could be argued that ethics is placed in the subject of Religion in the Swedish educational system, and it could therefore be asked if this is a reasonable "home" for it. Many moral educators and moral philosophers would argue that it is not (cf. Forsman, 2011). And the Swedish National Agency for Education (2016) claims that ethics is in fact not prioritised in the teaching in the subject of Religion, but that the focus of teachers' work is the world religions, rather than ethics. There are several grave problems with having ethics in the Religion subject, of which I shall only briefly mention one here, namely the difference in approaches that are typically taken to these two different subjects, which might explain why ethics is in fact not in focus in the teaching in the subject of Religion. With regard to religion, analogously as regarding ethics, three different approaches could be taken: a descriptive approach, a religion beliefs transmission approach (which could also be called "the confessional approach"), and an inquiry approach. The first would consist of learning facts about religions and religious beliefs, such as how a particular religion (or variant thereof) views a certain issue, how different religions compare to each other, how religious beliefs have influenced (other) cultural phenomena, etc. The religious beliefs transmission approach, instead, would be to make sure that students come to accept a certain set of religious beliefs. And the inquiry approach, finally, would consist of learning to think critically about religions and religious beliefs, to question and evaluate the reasonableness of different religious beliefs, and so on. In the syllabus for the Religion subject, it seems (although I have not studied this as thoroughly as with regard to the references to ethics), that the descriptive approach is the only one taken (except when regarding ethics and "views of life" ("livsåskådningar")). Moreover, the thought of having any of the other two approaches would probably sound strange to many members of Swedish society, and e.g. the religious beliefs transmission approach is ruled out by the Education act stipulating that all education within public schools should be non-confessional, and that all teaching in other schools should be so as well (although there can be extra-curricular events which are not). And Lipman, a proponent of dialogic teaching, and of an inquiry approach to education in general, is explicitly against an inquiry approach to religion, and sees religious belief as one of the few things that should be left out of an inquiry (e.g. Lipman et al., 1980). Hence, since the (rest of the) Religion subject is strictly descriptive, it might be unfitting to have ethics in it, since that conflicts with the other two approaches to ethics in school, both of which are strongly prescribed in the curriculum. Hence, a "Philosophy" subject would be a much more fitting home for ethics, since an inquiry approach is both fitting and typical in philosophy education.

mean that it had to be incorporated as a subject of its own, but it speaks in that direction. Moreover, if the students dealt with ethics in a specific subject, they would reasonably be better suited for fulfilling the aims of the ethics perspective with less effort from the teachers, just as when students have practiced reading separately, the teachers in e.g. social science needs to pay less attention to helping the students (learn to) read, and can therefore focus more on the subject at hand.

Moreover, the present study has given further reasons to believe that school, in the present state of having ethics only as an overarching perspective, does not succeed in its efforts, as we have seen. Similar conclusions, but on different grounds, have been drawn in prior research and studies, as we have seen. This also speaks in favour of having ethics as a subject, since not having it seems insufficient.

Yet another argument can be given based on the first discussion, about how having ethics as a subject could positively influence the ethics perspective on other subjects. While it is important to have ethics as a perspective on other subjects, it could be argued that it is also important to have ethics as a perspective on life itself, and this would speak in favour of having ethics as a subject in itself, where such a perspective could both be taken and where a foundation upon which such a perspective could be taken by the students themselves could be built. It could be argued that this could not be sufficiently dealt with if ethics is only treated as a perspective on other subjects.

Hence, it seems that there are quite strong arguments for holding that ethics ought to be treated both as a perspective on other subjects and as a subject of its own. And especially since the inquiry ethics approach to ethics in school has been found to have the strongest pedagogical merits, and the connections between ethics and other parts of philosophy, such an ethics subject could reasonably be a part of a larger philosophy subject, if treated in a largely dialogical fashion. Such a subject could also constitute an important catalyst for more dialogic education in general, which could have positive impact on many other areas of school, not least the Technology and Science subjects, through paving way for a more visible STS approach.

Thus far, I have most of the time written as if there would be a subject only concerned with ethics, but it seems that the above arguments hold as well for the case of having a philosophy subject, where ethics would be an important part. In fact, there are several reasons for thinking that this would in fact be more beneficial to the promotion of the kind of reasoning skills that an inquiry ethics approach is aimed at helping develop, than would a subject only containing ethics.

To sum up, the material in this thesis suggests that ethics ought not only to be treated as an overarching perspective in the Swedish educational system, but also as a subject in itself. There are good reasons for it being an overarching perspective – it is, as the arguments for this position have suggested – important for (almost) all the other subjects, and it is important in the everyday activities in school. But this does not imply that it ought not to also be a subject in itself.

CONCLUDING REMARKS

I will now state some of the main conclusions that can be drawn from the material presented and discussed above.[159] The first is that based on the material considered in this thesis, the pedagogical merits of the inquiry ethics approach to ethics in school widely exceed those of the value transmission approach and the descriptive ethics approach. Hence, if one of these approaches is to be taken, it is the inquiry ethics approach to ethics in school.

The second conclusion is that there is a need to reconsider the way that ethics is prescribed by the national curriculum for Swedish compulsory school. The fact that the value transmission and the inquiry ethics approaches are found to be incompatible is bad news, since they are both prescribed by the curriculum. At a minimum, their respective roles and relations to each other in the curriculum and the educational system should be reconsidered and explicated, to facilitate schools' and teachers' work with ethics. But possibly, if they are indeed deeply incompatible, they cannot both be part of the curriculum, and one has to be jettisoned. Due to the fact that inquiry ethics is found to be even slightly more strongly present in the curriculum, and more importantly, the fact that the inquiry ethics approach has stronger pedagogical merits, it seems that the inquiry ethics approach is the approach that should be taken.

The third main conclusion is that the evidence taken into consideration in this thesis seems to suggest that there ought to be a subject dedicated to ethics in Swedish compulsory school. Perhaps this would best be suited in a wider subject of philosophy, or else a subject of only ethics.

There are strong reasons for believing that making the above mentioned changes to ethics in school would contribute to resolving several of the problems discussed in this thesis. Many teachers reportedly find it difficult to work with ethics, and these changes would reasonably make such work easier, in several ways. One such example in particular is technology education, and work within an STS approach to technology in schools. It has also been shown in both prior research and in some of the results of this study that (Swedish) schools do not succeed very well in accomplishing several of the aims relating to moral education. If the conclusions above are correct, some of these aims need to be modified, and reaching those aims that are still kept would most likely be easier given the changes presented in these conclusions.

Future research

In the following, I will state some brief suggestions for some directions of future research. The present study has been a small sample explorative research study, generating some hypotheses, but it would be beneficial to have larger-scale studies to test the results of the present study.

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[159] For safety's sake, I state what is probably obvious; I might be wrong in some or several assumptions (including ones that I have not explicated), arguments or conclusions. And there are certainly other arguments and evidence to take into consideration. And several of the conclusions are abductive, and hence fallible. The conclusions must be seen in this perspective.

The distinction between decision method and criterion of rightness may well be used in large-scale studies to explore the rate of occurrence of each respective form of variety in students' moral reasoning found in the present research. The present study can then be seen to have generated hypotheses, which could be tested in hypothesis-testing future research. Although it could not be tested in a Popperian sense of possible falsification, it would also be interesting to investigate the core hypothesis that each of the six forms of varieties actually exists. Such claims cannot be falsified.[160] Moreover, it is, as noted above, sufficient with one positive instance of each form of variety to conclude that each of them exists, and I believe that the present research includes such examples. But it might be that we made some errors, e.g. in data production or the data processing, that would mean that a premise was false, and hence the conclusion that the variety in question exists would be false as well. If more studies found similar results, on the other hand, it would be more likely that each form of the varieties actually existed.

Future research could also examine the potential context dependence of the different forms of varieties. It would be interesting to study if there are differences in how each respective form of variety is affected by different kinds of changes in context, and to what degree each of them is sensitive to these changes, respectively. Such studies would contribute to a richer understanding of different forms of varieties in students' moral reasoning. For example, it could be hypothesised that intrapersonal varieties in the decision method dimension would be more sensitive to changes in context and informational assumptions, while intrapersonal varieties in rightness criterion would be more insensitive to these and would demand more extensive or radical changes. Nonetheless, current research on context dependence does not suffice to answer such questions, since the distinction between these forms of reasoning had not been used prior to (Backman & Gardelli, 2015).

As noted above, studying students' moral reasoning is widely done in a broad range of educational research. The more fine grained understanding of moral reasoning in relation to the six forms of varieties presented above could be used to facilitate new findings in future research through employment of the six forms of varieties as analysing categories. For example, moral reasoning has been shown to correlate to such factors such as delinquent behaviour and democratic abilities, and a future research endeavour of importance would be to study whether certain forms of varieties correspond more strongly to such factors than others. Such findings could further guide educational policy and classroom practice. (Backman & Gardelli, 2015)

Finally, with regard to varieties in students' moral reasoning, a revisiting of prior models of explanation of varieties in moral reasoning, including the social-cognitive domain theoretical model, would be of great value. It would be important to answer to what extent, and in what contexts, these prior models of explanation are reasonable, if any. And also what further explanations and theories that can be given. Hopefully, utilising the framework proposed in this study could contribute in answering these questions.

Based on the findings of the existence of all the three approaches to ethics in school in the curriculum, it would be interesting with further research into the occurrence of each of them

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[160] But, as noted above, the equivalent claims – the claims that, for each of the forms respectively, that form of variety does not exist – can be falsified.

in the classroom, e.g. through classroom observations. While some such studies have been done (cf. Wyndhamn, 2013), more would be needed, and the framework here provided could be utilised for a fine grained understanding of how these approaches are taken. It would also be interesting to study how teachers interpret ethics in the curriculum; both how they manage to, and what interpretations they give, in relation to the interpretations presented above, and also as challenged by other researchers. My hypothesis is that there is not enough time (and possibly also a lack of theoretical resources) to manage such an interpretation, due to the complex and opaque state of the curriculum in these regards.

In the discussion about the children's reasoning and online safety, I discuss the reasonableness of a theory regarding how the existence of value transmission concerning online behaviour might produce a situation where grown-ups experience what turns out to be a false feeling of safety due to the fact that the students claim to uphold values and follow principles (possibly due to the existence of the attempted value transmission) that they do not in fact uphold or follow. Several parts of this have to be examined further, including the following. First, as noted above, it would be of importance to have a better picture of the occurrence of the value transmission approach in schools. Second, it would be interesting to investigate whether there is a correlation between a larger amount of attempted value transmission and the tendency for students to pay lip service to values and principles they do not in fact uphold or follow. Third, it might be studied whether parents and teachers are more "in tune" with the values, principles and behaviour of the students in case there is a lesser degree of value transmission and instead a larger degree of inquiry ethics. Fourth, it would be interesting to study if the amount of online behaviour that is considered risky, or not safe, is higher or lower depending on the amount of value transmission versus inquiry ethics that the students have been partaking in. And there are more questions of interest and importance in relation to this as well.

While there are also some prior studies that have found, similar to the results of this study, that there is a conflict between students' moral reasoning and the values of the value foundation, it would be beneficial with further studies, e.g. regarding to what extent such conflicts arise. It would also be interesting to study the relationship between such conflicts of moral reasoning and the extent to which the different approaches to ethics in school have been taken in the education in those schools studied. Are there, e.g., smaller or larger conflicts in schools that have had more value transmission education, compared to those schools that have had less?

Although I have made some short comments about the relations between these three approaches to ethics in school, there is certainly a great need for more studies into these matters. Are they compatible or incompatible? What features do they share, and what are their differences? Are there versions of them that are more compatible than others? In particular, the outlook for inquiry ethics to constitute a form of ideal (albeit perhaps limited) value transmission approach is very interesting and of great importance.

Beyond value transmission

There is an urgent need to improve ethics in school. In the light of the conflicting roles prescribed by the curriculum, it is not surprising that prior research has found that teachers find dealing with ethics difficult. It would be beneficial to school practice if these conflicts were resolved, and some suggestions are given in this thesis. A more explicit distinction between the approaches to ethics in school, and clear description of which of them is to play what role, and the relation between them, would contribute towards this.

As we have seen, the material in this thesis speaks in favour of inquiry ethics more strongly than of value transmission. And in the discussion it was found that there is a conflict between these two that gives reason to believe that they cannot both (simultaneously) be the aims of education, at least not on the same level. Hence, not only is there a need to be more explicit about their relation; there is a need of downplaying value transmission in school. Moving beyond value transmission in school might to some people seem like a quite radical idea. Many commentators believe that value transmission is a core ingredient in education, maybe in other forms of fostering as well, such as parenting. "Don't we want our kids, students, or the future generations to stand by the values we hold dear?", the proponent of value transmission might ask. "But do we really?", the critic of value transmission might rhetorically ask in return. If she is a moral realist, she might conclude that what we want is for our children to maintain our cherished values, insofar as they are good. But what we really want, she would continue, is for them to uphold as good values as possible. Were we to choose between our children becoming exactly the same as us, or slightly better, would not the best thing be if they became slightly better? Is not this what we hope to be the consequence of the development of our civilisation, that every generation can reach a little further than the preceding one? That things become better and better? Who would want their children to become exact copies of themselves, if that meant that they were prevented from reaching a higher potential? "If so", the critic of value transmission would continue, "we should help the children acquire the tools to reach the values and opinions of their own lives, not decide for them that they should uphold ours." She would hope that they would thereby keep what was good of us, and improve upon what was not as good. And if the educational system is successful in these aspects, this is exactly what they also likely would. In this, the critic of value transmission might have Dewey on her side, who would say that we do not know what the future will hold for our children, so we cannot know what values will be of importance and utility for them. But we might be quite sure that skills in moral inquiry and thinking skills relating to ethical reasoning will help them face that future as prepared as one can be. "Isn't that", she would conclude, "really the best we could wish for as educators, as parents, or citizens with regard to future generations?"

Interestingly, a seemingly similar line of reasoning is open to the moral relativist as well. She does not think that there is one moral framework that is better than another, *per se*, but that some frameworks are better than others, relative to a time, a culture or a situation. Hence, she might very well still consider value transmission problematic for a similar reason as discussed above. Our children will not live in the same time that our lives have been playing out, not in the same situations. Hence, our values – even if they would be the perfect values

relative to our context – would not necessarily be appropriate for their lives. Hence, rather than instilling in them our values, or any values predetermined by us, we should, the relativist critic of value transmission could agree, help the children to learn to make their own judgements, evaluations and moral inquiries. Again, Dewey would probably readily stand by her side in this. Given this reasoning, the idea to move beyond value transmission might not be so strange after all.

SVENSK SAMMANFATTNING

Här ska jag ge en översiktlig och grovhuggen sammanfattning, på svenska, av studiens huvudsakliga drag. Förhoppningen är att den också kan utgöra en guide till var i avhandlingen den intresserade läsaren kan vända sig för att se detaljer och mer precisa formuleringar, eftersom det är den engelska texten som är den huvudsakliga. Jag ber därför kollegor och studenter som vill referera till mitt arbete, eller söker efter dess källor, att söka i, hänvisa till, samt citera ur, den engelska texten.

Etik har en central och viktig roll i den svenska grundskolan, enligt den nationella läroplanen. Men hur, mer precist, ser denna roll ut och hur ska skolan arbeta med etik? Tidigare studier har visat att det finns många brister i skolans arbete med etik, så som det nu ser ut.

I denna avhandling gör jag en distinktion mellan tre olika sätt att bedriva etikutbildning, tre ansatser, vilka jag kallar "den deskriptiva ansatsen", "värdeöverföringsansatsen" respektive "den undersökande ansatsen".

Att bedriva etikutbildning i skolan utifrån *den deskriptiva ansatsen* handlar om att försöka se till att eleverna lär sig deskriptiva fakta om etik. Hit hör sådant som vilka moraluppfattningar människor faktiskt har, hur vanliga eller ovanliga vissa värderingar är på vissa platser eller i vissa tider, osv. Hit hör sådant som huruvida en majoritet av svenskarna anser att djurs lidande bör tas i beaktning när man väljer vad man ska äta till middag, hur många svenskar som anser att Europa bör ta emot fler asylsökande, om kärnvapenmotståndet är större nu än på 70-talet, osv. Allt detta handlar om vilka moraluppfattningar människor har, och det kan alltså studeras och undervisas om i skolan. Och detta är just vad den deskriptiva ansatsen föreskriver att skolan ska undervisa om.

Värdeöverföringsansatsen (eller "moralfostransansatsen") föreskriver istället att skolan ska se till att eleverna omfattar vissa på förhand bestämda värderingar, att de accepterar vissa värden. Den s.k. "värdegrunden" och den roll den tillskrivs i det svenska skolsystemet är ett utmärkt exempel på detta. Enligt värdeöverföringsansatsen ska man på förhand bestämma en uppsättning moraliska värden, principer, regler eller liknande, vilka det är skolans uppdrag att se till att alla elever omfattar eller accepterar. Denna överföring ska ske på ett direkt eller tämligen direkt sätt. Det kan handla om övningar eller handlingar som eleverna ska utföra för att dessa ska skapa en viss karaktär och befästa vissa värderingar och handlingsdispositioner hos eleverna, att vuxna i skolan föregår med gott moraliskt exempel så att eleverna kan ta efter detta beteende, att eleverna får läsa om, eller på annat sätt komma i kontakt med, berättelser om personer med gott agerande och goda karaktärsdrag som eleverna ska ta efter, att man explicit sätter upp värden, regler och principer som eleverna måste följa, eventuellt med sanktioner eller belöningar, och eleverna på så sätt med tiden börjar att omfatta dessa, att man ordnar skolmiljön så att bara ett gott agerande kan försiggå och att eleverna därför tränas i detta, att man berättar vad som är rätt och fel, osv.

Den undersökande ansatsen, slutligen, föreskriver att skolan ska se till att eleverna lär sig att resonera om moral, att de utvecklar förmågor relaterade till att granska, undersöka och kritiskt utvärdera moralpåståenden, principer och värderingar, att själva ställa frågor om moral och

rationellt söka besvara dessa, att förstå och förhålla sig till etiska teorier, att argumentera och samtala om etiska frågor, osv. Det handlar alltså om att eleverna ska utveckla autonomi och det som ofta kallas "högre kognitiva förmågor". Den undersökande ansatsen handlar typiskt om dialog om etik, om undersökande samtal, om att själv ta ställning i moralfrågor, om att utveckla kritiskt tänkande kring moral, osv.

Denna tredelade distinktion, om än det finns spår av den hos många olika utbildningsfilosofer och –teoretiker, och den baserar sig på klassiska distinktioner inom moralfilosofin, är ovanlig (för att inte säga, enligt vad jag har funnit, inte tidigare använd) inom utbildningsvetenskapen. Vissa skiljer mellan värdeöverföringsansatsen och den undersökande ansatsen, och flera utbildningsteoretiker gör distinktioner som är snarlika denna tvådelade distinktion, men ändå inte riktigt densamma. Jag argumenterar dock för att den distinktion som här används skiljer på viktiga aspekter av etikutbildning, och att användandet av den inom pedagogisk forskning har goda förutsättningar att bidra till viktiga resultat och insikter om etik i skolan.

Syftet med denna studie är att studera dessa tre ansatser till etikundervisning och undersöka (1) deras roll i det svenska utbildningssystemet, (2) hur de relaterar till elevernas moralresonemang, och (3) vilka pedagogiska styrkor och svagheter de har. Studien har strukturerats utifrån två forskningsfrågor:

(A) Hur är de tre ansatserna till etikundervisning (den deskriptiva ansatsen, värdeöverföringsansatsen respektive den undersökande ansatsen) föreskrivna av läroplanen – i teknikämnets kursplan i synnerhet, i de andra ämnenas kursplaner i allmänhet, samt i de allmänna delarna av läroplanen för det obligatoriska skolväsendet i det svenska utbildningssystemet?

(B) Hur resonerar eleverna om etiska aspekter av teknikval samt agerande online, och vilka relationer finns inom dessa resonemang?

Bakgrund

Jag ska här ge en mycket kort redogörelse för bakgrunden till avhandlingen. De referenser som finns i motsvarande avsnitt i den engelska texten utelämnas i princip här.

Etikundervisning och elevers moralresonemang

Inom forskningen om etikundervisning är forskning om elevers moralresonemang ett centralt område. I den tidigare forskningen om elevers moralresonemang har mycket fokus ägnats åt variationer i deras moralresonemang. Dels har man studerat variationer mellan individer (s.k. "interpersonella variationer"), alltså där en individ resonerar på ett sätt och en annan individ resonerar på ett annat sätt, dels har man studerat variationer hos en och samma individ (s.k. "intrapersonella variationer"). En dominerande teori inom den tidigare forskningen är den s.k. "social-kognitiva domänteorin", enligt vilken det är ett grundläggande antagande att variationer kan förklaras genom variationer i kontext, t.ex. att en person kan agera olika i olika situationer beroende på att personen innehar olika sociala roller i respektive situation,

eller att beslut under högre tidspress tenderar att producera mer pliktetiskt moralresonemang, medan ökad tid tillåter mer utilitaristiska överväganden. Interpersonella variationer förklaras också inom teorin med sådant som att olika personer har olika socio-ekonomisk bakgrund, kön, osv. Ett väldiskuterat och känt exempel är kontroversen kring huruvida det finns skillnader inom moralresonemang mellan kvinnor och män.

Etik har en framträdande roll i den svenska läroplanen (en roll som granskas mer noggrant nedan), inte minst genom den s.k. "värdegrunden", vilken första gången fanns med i 1994 års läroplan. Redan i redogörelsen för hur värdegrunden tillkom syns en slitning mellan två perspektiv – mellan värdeöverföringsansatsen och den undersökande ansatsen – vilken kommer att följa oss genom denna avhandling. Skaparna av 1994 års läroplan beskriver att värdegrunden tillkom som ett svar på förändringar de såg i samhället, framförallt en ökande värdepluralism, och det faktum att de ansåg att en skola inte kan vara värdeneutral.

Studier av hur etikundervisning i den svenska skolan fungerar målar upp en bild av att skolan inte har särskilt stor påverkan på elevernas moralutveckling, att man i undervisningen saknar verktyg för att arbeta med etik, något som framkommer i flera studier. Sammantaget visar många undersökningar en ganska nedslående bild av att man varken lägger tid eller fokus på etiken (samtidigt som man inte heller anser sig ha resurser eller förmåga att göra det), och att man därför inte heller når några stora resultat. Som vi kommer se nedan så finns det skäl att tro att detta bland annat har att göra med att etiken ges en så oklar och spretig roll i läroplanen.

Monologisk och dialogisk undervisning

Man kan skilja mellan två olika sätt att närma sig den pedagogiska situationen, nämligen vad som kan kallas "monologisk" respektive "dialogisk" undervisning. Den *monologiska* undervisningen kallas ibland också för "den traditionella", eller "den lärarcentrerade" undervisningen. Den *dialogiska* undervisningen har länge framhållits av utbildningsteoretiker, såsom Dewey, Vygotsky och Lipman, som förespråkar att eleverna ska utvecklas till oberoende tänkare och aktiva demokratiska medborgare. Men trots att dialogisk undervisning har förespråkats under lång tid så är det den monologiska som dominerar i klassrum världen över.

Den dialogiska undervisningen skiljer sig från den monologiska i att den karakteriseras av en icketraditionell maktfördelning där lärare och elever möts på tämligen jämlika förhållanden, där "eleverna ses som potentiella bärare av kunskap och insikt, vilket ifrågasätter expert-nybörjarhierarkin [i skolan]" (Nystrand et al., 2003, s. 140). Dialogisk undervisning innehåller autentiska, öppna frågor, där läraren ofta saknar färdigpaketerade svar och vilka ska leda till meningsfulla undersökningar och ny förståelse, vilket också bidrar till det jämlika förhållandet i klassrummet. Både frågor och kvalitativt besvarande av frågorna kommer till stor del från eleverna själva i ett öppet samtal – en dialog. Det monologiska klassrummet domineras istället av idén att läraren ska lära ut något specifikt till eleverna, vilka i stort är passiva, och de frågor som används är ledande och har förutbestämda svar – ofta mycket korta faktasvar eller t.o.m. ja/nej-svar – vilka ofta är avsedda att testa om eleverna memorerat det rätta svaret snarare än inbjuda dem att (eller testa om de kan) tänka själva. Detta mönster kallas ofta för "recitation", eller "IRF" (från "Initiation-Response-Feedback"). Nystrand et al.

(1997, s. 6) påpekar att ofta ”när recitation börjar, så ersätts tänkandet av minne och gissande”. Eleverna ska lyda och inordna sig, snarare än att kreativt och självständigt tänka själva.

Vissa menar att det är stora krav att ställa på klassrumssituationen att undervisningen ska vara dialogisk. Andra hävdar att det dialogiska klassrummets krav ska uppfyllas av varje god pedagogik. Klassrumsstudier har dock visat att det typiska klassrummet i princip saknar dialogiska inslag, att quiz-frågor dominerar, att en timmes typisk undervisning består av 84 frågor från läraren, och bara en enda fråga från elevgruppen, att läraren sköter det mesta talandet, att de flesta frågorna är stängda, icke-genuina frågor, att en timmes undervisning i årskurs nio enbart innehöll ca 15 sekunder genuint samtal, och att allt detta har varit tämligen oförändrat över de senaste 100 åren.

Det har visat sig att lärarstudenter är mer positiva till dialogisk undervisning än verksamma lärare och att icke lärarutbildad personal ofta är mer benägen att bidra till ett dialogiskt klimat än utbildade pedagoger. Det finns olika teorier om varför det är så, men tidigare forskning har påpekat att dialogisk undervisning är krävande och utmanande (i början) för lärarna och att det finns en rädsla för att värdekonflikter ska uppstå. Skolverket (2000) har också funnit att lärare anser att de saknar kompetens och tid för att arbeta med samtal. Men Arneback (2014) noterar också att samtal där svåra ämnen uppkommer också är en möjlighet att verkligen göra stor skillnad och nytta. Och om värdekonflikter inte uppkommer i klassrummet, där läraren ser och har möjlighet att arbeta med dem, vilka uttryck får de då?

En av de mer utvecklade pedagogiska metoderna för dialogisk undervisning är filosofiska samtal med barn. Det har visat sig att denna metod utvecklar ett dialogiskt klassrumsklimat, där lärare ställer fler öppna frågor, där eleverna ställer fler frågor och deltar med mer kvalitativa och utförliga svar och resonemang, och visar mer engagemang för skolan och mer intresse för varandras utsagor. Deltagarna har visat sig utveckla emotionella och sociala färdigheter, bättre relationer, ökad förmåga och tendens att lyssna på varandra och visa varandra respekt, samt ökat självförtroende och ökad trygghet. Deltagarna utvecklar kognitiva färdigheter och förmågor, både verbala och icke-verbala, såsom läsförståelse, matematiskt tänkande, ökad förmåga till argumentativt skrivande, förbättringar i kritiskt tänkande, logiskt tänkande och problemlösning, samt i kreativt tänkande. Det har också visat sig att deltagande i filosofiska samtal ökar barnens intelligens (dessutom i det en del forskare ser som flera olika sorters intelligens), och att det leder till bättre skolresultat och akademiska prestationer i allmänhet. Det har också visat sig vara en framgångsrik metod för att utveckla demokratiska färdigheter, förmågor och värderingar.

Utifrån teorier om dialog, från bl.a. Bakhtin, diskuterar jag de tre ansatsernas relation till monologisk och dialogisk undervisning, och kommer fram till att den undersökande ansatsen är förenlig med en dialogisk undervisning, medan värdeöverföringsansatsen enbart är förenlig med monologisk undervisning.

Teknikundervisning

Den traditionella teknikundervisningen har haft som syfte att lägga grunden för de elever som sedermera kommit att läsa vidare till ingenjörer (eller liknande). De senaste decennierna har denna position dock kommit att kritiseras, och det har istället föreslagits en

teknikundervisning för alla, med målet att utbilda framtida samhällsmedborgare och framtida generationer som kan ta vara på vår värld. I relation till detta har man argumenterat för att det traditionella innehållet i teknikundervisningen – inom-tekniska kunskaper om tekniska lösningar, metoder och modeller – skall komplementeras (eller mer eller mindre ersättas) av ett bredare ämnesinnehåll som kopplar teknik och teknikutveckling till samhällsfrågor och den mänskliga tillvaron. Här är etik ett avgörande inslag enligt många forskare, och även andra filosofiska aspekter, liksom historiska och andra samhällsvetenskapliga perspektiv på tekniken. Denna ansats kallas ofta för "STS-ansatsen" (från "Science-Technology-Society"). Förutom att bättre behandla de etiska frågorna i relation till teknik, så påstås det ofta att STS-undervisning bättre än den traditionella teknikundervisningen ska utveckla elevernas förmågor till "högre tänkande" ("higher level thinking skills"). I relation till detta sägs också ofta att en STS-undervisning bättre tar tillvara elevernas intresse för teknik samt deras kreativa tänkande och utforskande nyfikenhet.

Även om STS-idén har fått genomslag i den teoretiska diskursen kring teknikundervisning, och även i policy (t.ex. i den svenska läroplanen) så visar studier dock att den faktiska implementeringen av STS-material och -metoder i undervisningen är minimal. Där den väl implementeras visar det sig också att varken lärare eller elever får någon egentlig förståelse för det centrala innehållet i STS-undervisningen. Därutöver visar flera studier att många lärare (enligt vissa studier de allra flesta) saknar både intresse och självvärderad kompetens inom STS. Exempelvis visar Kåreklint (2007) att lärarna i stort försöker undvika etiska frågor, eftersom de inte anser sig ha kompetens. Inte heller lyckas STS-undervisningen göra eleverna mer intresserade, och deras nyfikenhet och kreativa tänkande minskar snarare med mer teknikundervisning. Dessutom ökar inte deras logiska eller kritiska tänkande, vilka vanligen klassificeras som högre tankeförmågor. Det behövs något som kan göra STS-undervisningen både mer begriplig och konkret i sitt innehåll och metodik, samt bidra till att upphäva dessa tillkortakommanden.

Elever online

Studier om elevers förhållande till modern informations- och kommunikationsteknologi ("IKT") är många de senaste åren, på grund av de senaste decenniernas explosiva ökning av användandet av IKT och ungas ökande användande av internet. Bland dessa studier är ett huvudsakligt fokus relaterat till ungas säkerhet online, deras beteende och i vilken mån de utsätts för farliga situationer, vilket innefattar kontakt med individer som på olika sätt kan skada dem, med innehåll som kan skada dem eller med att de skadar sig själva, exempelvis genom den information de delar om sig själva, eller personer i deras omgivning, genom t.ex. nätmobbning. Dunkels (ex. 2007) visar hur mycket av denna diskurs har kommit att handla om vuxnas rädslor. Skolorna har svårt att hitta metoder för att arbeta med dessa frågor. Fram till nyligen (då många av eleverna numer själva har tillgång till internet genom ex. smartphones) var en metod helt enkelt att stänga av internet på skolornas datorer. Rapporterna om huruvida unga personers risker online ökar eller minskar är splittrade, och frågorna är komplexa. Somliga studier har funnit att nästan 90 % av ungdomarna uppvisade riskfyllt internetbeteende. Vissa studier visar också att vuxna är överdrivet säkra på att deras

barn är trygga online. En av de risker som på senare år har givits allt mer plats i det offentliga samtalet är hur unga påverkas av extremistiska budskap online, och hur ungas informationsflöde kommit att i många fall bli allt mer snävt och filtrerat genom vissa kanaler med en särskild agenda.

Många av de försök som görs att stötta unga i deras internetanvändning fokuserar på enkla och handfasta tips (som hur man gör, rent tekniskt, för att göra sin profil på någon social plattform privat). Skolverket (Holmqvist, 2009) fann att bara en av sex lärare sade sig arbeta med etiska frågor om internet och internetanvändning. I ett snabbt föränderligt landskap är det svårt för vuxna att hjälpa de unga. Många forskare argumenterar idag för att det behövs lösningar som gör unga kompetenta att själva hantera sitt Internatanvändande.

Teoretisk bakgrund

Jag ska inleda med att beskriva den ontologiska teori (alltså idé om sakers beskaffenhet) som kallas för "realism". Enligt realismen finns det en objektivt existerande omvärld, alltså att det finns saker som existerar och är som de är oberoende av hur någon tänker om dem, pratar om den, eller liknande. Enligt *moralisk realism* finns det moralegenskaper (som rätt/fel, gott/ont) som existerar på detta oberoende sätt. Jag argumenterar i avhandlingen för – i motsats till vad som ofta hävdas – att pragmatikerna (t.ex. Dewey och James) antingen var eller borde ha varit realister. Under rubriken "Metaetik" nedan redogörs närmare för hur jag i avhandlingen diskuterar de tre etikundervisningsansatsernas respektive förenlighet med den moraliska realismen samt med en alternativ ontologisk teori om moral: moralisk relativism. Till skillnad från den moraliska realismen tänker sig de moraliska relativisterna inte att det finns objektivt sanna moraliska värden, utan att moraliska värden bara är sanna relativt någon individs, eller grupps, tänkande om dessa värden.

För att förstå och systematisera elevernas etiska resonemang används *normativa teorier* (generella teorier om vad som är moraliskt rätt och fel) i denna avhandling. Dessa har en mycket lång historia och är väl diskuterade och studerade, så det finns mycket teori att luta sina bedömningar och tolkningar mot. I resultatet kommer vi sedan att se att alla dessa teorier, mer eller mindre, förespråkas av eleverna.

Den normativa teori som kallas "utilitarism" är en variant av den mer generella teori som kallas "konsekventialism", enligt vilken det som avgör en handlings moraliska status är dess konsekvenser. Utilitarismen preciserar detta till att de relevanta konsekvenserna är vilken lycka och vilket lidande som handlingen orsakar för alla kännande varelser.

I sekelskiftet mellan 17- och 1800-talet skrev Kant ett flertal verk där han lade grunden för det som kommit att kallas "pliktetik", eller "deontologi". Enligt pliktetiken är det inte en handlings moraliska konsekvenser som avgör dess moraliska riktighet utan snarare vilken typ av handling det rör sig om. Vissa handlingar är helt enkelt plikter, handlingar vi måste utföra. Andra handlingar är istället förbjudna, sådana att vi inte får utföra dem, oavsett vilka positiva konsekvenser handlingen skulle kunna ha fört med sig. Kant presenterade också ett kriterium för hur man avgör om något är en plikt, vilket ofta kallas "det kategoriska imperativet". Detta

brukar ofta sammanfattas enligt följande: "Handla alltid efter en sådan maxim som du kan anse bör upphöjas till allmän lag!"

Rättighetsetiken är en normativ teori som är nära besläktad med pliktetiken, på grund av en princip som lånats från Kant, vilken säger att man aldrig får behandla andra enbart som medel, utan alltid måste behandla andra också som mål i sig själva. Utifrån denna princip härleder sedan rättighetsetiker idén att individer har moraliska rättigheter, och således att alla andra har moraliska skyldigheter gentemot dem.

Dygdeetiken är en normativ teori som delvis skiljer sig från ovan beskrivna teorier. Den har rötter som går tillbaka till Aristoteles, och har på senare år ökat i popularitet, inte minst genom utvecklandet av den s.k. "omsorgsetiken", vilken ofta ses som en version av dygdeetiken. Dygdeetiken skiljer sig från de andra normativa teorierna genom att den ställer en annan typ av grundläggande fråga. Istället för att se frågan om vilka handlingar som är moraliskt korrekta respektive felaktiga som central, så fokuserar dygdeetiken istället på hur man bör vara som person, vilka karaktärsdrag som är dygdiga. Utifrån detta kan man sedan härleda hur man bör agera. En dygdeetiker är därför intresserad av sådant som om en person agerat modigt eller vist eller rättrådigt eller liknande, och inte lika intresserad av om handlingen hade goda konsekvenser eller av om den utgör en instans av lögn eller någon annan handlingstyp, eller inte.

Jag har redan i introduktionen beskrivit tre ansatser till etikundervisning, nämligen den deskriptiva ansatsen, värdeöverföringsansatsen och den undersökande ansatsen. Jag behandlar i den teoretiska bakgrunden också frågan om ansatserna är förenliga med varandra. Det finns i allmänhet problem med att "blanda" ansatserna, då de alla ställer tämligen olika mål för undervisningen, och därmed också olika krav på både lärare och elever. Den största konflikten råder mellan värdeöverföringsansatsen och den undersökande ansatsen. De krav som värdeöverföringsansatsen ställer, som den ofta tolkas och förstås (t.ex. av förespråkare för Skolverket och i flera av Skolverkets skrifter), är sådana att de inte är förenliga med en genuin dialog om moral i klassrummet, och därför omöjliggörs viktiga grundförutsättningar för den undersökande ansatsen. Detta får också stöd i viss tidigare forskning och litteratur. Den tre-delade uppdelning som här görs är tämligen ovanlig, för att inte säga ny (jag har tidigare presenterat den i (Gardelli 2011; Gardelli et al., 2014)), inom fältet, även om liknande distinktioner gjorts tidigare. Exempelvis skiljer Dewey på två sorters moraliskt tänkande, vilka svarar ganska väl mot värdeöverföringsansatsen och den undersökande ansatsen, och han beskriver också en konflikt mellan dem – och argumenterar för att det tänkande som utvecklas i den undersökande ansatsen är överordnat och mer viktigt. Lipman skriver frekvent om skillnaden mellan idéer som svarar väl mot värdeöverföringsansatsen och den undersökande ansatsen, och tycks också vara av uppfattningen att de två är åtminstone svårförenliga. Många skiljer på "traditionalism" och "progressivism", men denna distinktion är sällan helt översättningsbar till den terminologi som jag använder, eftersom både progressivism och traditionalism som de ofta karateriseras har spår av värdeöverföringsansatsen i sig (om än det är olika värden som ska överföras enligt de olika positionerna). En avhandling av Wyndhamn (2013) använder sig också av en distinktion som ligger nära den mellan värdeöverföringsansatsen och den undersökande ansatsen, och hon finner också en konflikt

dem emellan, i fråga om hur de tar sig uttryck i klassrummet. Men det är sällan som även den deskriptiva ansatsen görs synlig.

Metod

I denna avhandling har i huvudsak två olika metoder för dataproduktion använts: dels litteraturstudier för att skapa data om läroplanen och etikens roll i det svenska skolväsendet, dels intervjuer med elever för att skapa data om elevernas resonemang.

Intervjuer med 24 elever genomfördes. Enskilda, semistrukturerade intervjuer med den sorts frågor som brukar kallas "open-ended" genomfördes. Följdfrågor användes vid behov, för att skapa ett öppet samtal kring de teman som på förhand valdes ut. De data som ligger till grund för resultaten om elevernas resonemang om teknikanvändning samt om onlinebeteende genererades baserat på 19 av intervjuerna. Till de data som ligger till grund för resultaten om variation i elevernas resonemang tillkom också fem ytterligare intervjuer, vilka genomfördes av en annan doktorand, och dessa gemensamma data ligger till grund för en artikel som behandlar dessa resultat (Backman & Gardelli, 2015).

Centralt för bearbetningen av båda dessa typer av data har varit tolkning, och därför har en tolkningsteori använts, vilken har baserat sig på hermeneutisk teoribildning tillsammans med annan filosofisk teoribildning inom kunskapsteori, vetenskapsteori, språkfilosofi, argumentationsteori och logik. Bland annat den teori om slutledningar som brukar kallas "abduktion" har använts (se Backman, Gardelli, Gardelli & Persson, 2012). Jag har visat hur dessa teorier kan förenas och stärka varandra, med utgångspunkt i realismen.

Resultat

Resultaten kan delas upp i huvudsakligen två olika delar. Den första gäller etikens roll i läroplanen, och den andra gäller elevers moralresonemang.

Läroplanen

Jag ska här beskriva resultatet av dokumentstudien av läroplanen, vilken undersökte hur (om alls) de tre ansatserna till etikutbildning föreskrivs av läroplanen. Det visar sig att alla de tre ovan beskrivna ansatserna till etikundervisning föreskrivs av grundskolans läroplan, om än det är i olika utsträckning och i olika delar av läroplanen. Någon explicit åtskillnad görs dock inte. Dels finns det implicita hänvisningar till etik, dels explicita sådana. I fallet med de explicita härledningarna används uttryckligen sådana ord som "moral" och "etik", medan det i de implicita hänvisningarna inte gör det, utan snarare framgår genom användandet av termer som "värde", "värderingar" och liknande att det rör sig om en referens till etik.

Generellt sett har etiken en mycket central och framträdande roll i läroplanen. De allmänna delarna, inklusive värdegrunden, ska appliceras på alla skolans ämnen. Etik är också ett av de fyra övergripande perspektiven i läroplanen. Explicita referenser till etik finns i 11 av

kursplanerna, medan sju av kursplanerna enbart har implicita referenser. Två av kursplanerna har inga referenser till etik alls.

I de allmänna delarna av läroplanen är det huvudsakligen värdeöverföringsansatsen och den undersökande ansatsen som föreskrivs. Den deskriptiva ansatsen förekommer i princip inte alls. Värdeöverföringsansatsen föreskrivs primärt genom, och i relation till, värdegrunden, även om det i relation till detta också framkommer en del skrivelser som handlar om den undersökande ansatsen. I övrigt är det den undersökande ansatsen som dominerar de allmänna delarna. Men man ska ha i åtanke att värdegrunden spelar en central roll i de allmänna delarna av läroplanen.

I kursplanerna, å andra sidan, förekommer värdeöverföringsansatsen knappt alls. Här är det den undersökande ansatsen och den deskriptiva ansatsen som föreskrivs mest. Många av kursplanerna har referenser till flera av ansatserna, men i vissa fall är vissa av ansatserna ändock mer tydligt framträdande än de andra.

De explicita referenserna till etik fanns i kursplanerna för bild, engelska, biologi, fysik, kemi, geografi, religionskunskap, samhällskunskap, svenska, svenska som andraspråk och teknik. Explicita referenser till den deskriptiva ansatsen fanns i två kursplaner, till värdeöverföringsansatsen fanns i en kursplan, medan explicita referenser till den undersökande ansatsen fanns i åtta kursplaner. (Med en "explicit referens till en ansats" menar jag inte att ansatsen i sig pekas ut explicit, för det görs, som sagt, ingen explicit åtskillnad mellan ansatserna, utan det betyder istället att det finns en explicit referens till etik, och att denna handlar om ansatsen i fråga.)

Implicita referenser till etik fanns också i de kursplaner som nämnts ovan, men i sju av kurserna finns det enbart implicita referenser, och dessa är hem- och konsumentkunskap, idrott och hälsa, moderna språk, modersmålsundervisning, historia, slöjd samt teckenspråk för hörande. Implicita referenser till den deskriptiva ansatsen hittades i fem kursplaner, till värdeöverföringsansatsen hittades implicita referenser i tre kursplaner, och till den undersökande ansatsen hittades implicita referenser i fem kursplaner, precis samma kursplaner där det hittades referenser till den deskriptiva ansatsen.

I kursplan för matematik och kursplanen för musik fanns inga referenser till etik alls, varken explicita eller implicita referenser.

Teknikämnets kursplan studerades särskilt, och i denna fanns det ingen referens till värdeöverföringsansatsen, medan det fanns referenser till de andra två ansatserna. Gällande de implicita referenserna så var det svårt att avgöra om någon av ansatserna var mer central än den andra, men alla explicita referenser tolkades som referenser till den undersökande ansatsen. Detta leder till att den undersökande ansatsen får sägas ha en något mer central roll i teknikämnets kursplan.

På det hela taget är det den undersökande ansatsen som mest tydligt framträder i kursplanerna, följt av den deskriptiva ansatsen.

Sett till både de allmänna delarna och kursplanerna sammantaget är det den undersökande ansatsen som är den mest framtonande ansatsen i läroplanen. Värdeöverföringsansatsen, trots dess ganska tydliga frånvaro i kursplanerna, framträder som den näst starkast betonade ansatsen i läroplanen, på grund av dess centrala koppling till värdegrunden, vilken utgör en hörnsten i

läroplanens skrivelser om etik (men den utgör alltså dock inte allt som har med etik att göra i läroplanen, vilket vissa ibland verkar tro).

Tabell 5. Ansatsernas förekomster i läroplanens olika delar.

	Deskriptiva ansatsen	**Värdeöverför-ingsansatsen**	**Undersökande ansatsen**
Roll i de allmänna delarna	Liten	Stor	Stor
Explicita referenser i kursplanerna	2	1	8
Implicita referenser i kursplanerna	5	3	5

Elevernas moralresonemang

Den delen av resultatet som handlar om elevernas resonemang kan i sig delas upp i tre delar. Den första handlar om elevernas resonemang om teknikval, den andra handlar om deras resonemang om hur man bör agera på internet och den tredje handlar om variationer i elevernas moralresonemang.

Elevernas resonemang om teknikval

I resultaten om elevernas resonemang om teknikval används data som härstammar från en del av intervjuerna där eleverna fick ett scenario beskrivet för sig, i vilket de skulle fatta ett beslut om huruvida en framtida teknologi bör utvecklas eller inte. Det framkom här att eleverna i sina resonemang kring denna fråga gav uttryck för alla de ovan beskrivna klassiska normativa teorierna, vilket är intressant i sig. Det finns också här skäl att tro att deras resonemang står i konflikt med de världen som uttrycks i värdegrunden, och detta kommer jag att återkomma till i diskussionen.

Elevernas resonemang om internet

När det gäller elevernas resonemang om hur man bör agera på internet, baseras resultatet på delar av de intervjuer som gjordes med eleverna. Jag ställde frågor om hur de ansåg att man bör agera på internet i allmänhet, och presenterade också vissa scenarier som eleverna sedan skulle resonera om hur man skulle handla i. Eleverna gav här stöd för ganska långtgående och starka principer om att man inte bör lämna ut i princip någon personlig information på internet, samt att man i princip inte bör skriva någonting alls om andra, åtminstone inte utan deras tillåtelse. Även om skillnader fanns så rådde en tämligen stor samstämmighet bakom många av de svar och resonemang som gavs. Eleverna hade dock svårt att motivera de principer som de gav uttryck för, och även ganska svårt att precisera principerna eller ge

exempel på hur de skulle tillämpas. De sade också att vuxna i stort ansåg att man skulle agera just efter de principer som eleverna själva tidigare hade ställt sig bakom.

Variationer i elevernas moralresonemang

I en artikel (Backman & Gardelli, 2015) har jag varit med och föreslagit en ny distinktion inom forskningsfältet om moralresonemang, en distinktion mellan sex olika sorters variationer i moralresonemang. Denna baserar sig på en klassisk distinktion mellan två nivåer inom moraliskt tänkande: beslutsmetod och riktighetskriterium.[161] Givet denna distinktion kan vi skilja mellan följande sex sorters variationer inom moralresonemang: (i) interpersonella variationer inom beslutsteorinivån, (ii) intrapersonella variationer inom beslutsteorinivån, (iii) interpersonella variationer inom riktighetskriterienivån, (iv) intrapersonella variationer inom riktighetskriterienivån, (v) interpersonella variationer mellan nivåerna och slutligen (vi) intrapersonella variationer mellan nivåerna.

Denna distinktion används för att skapa en mer nyanserad förståelse för moralvariationer, och genom bearbetning av intervjudata utifrån denna distinktion, så visar jag att alla de sex sorternas variationer återfinns i elevernas resonemang. Detta är ett nytt resultat som kan bidra till ny forskning inom fältet, och ge en ökad förståelse för elevers moralresonemang. Detta kommer att diskuteras vidare nedan.

Diskussion

Nedan ska jag kort redogöra för vad som behandlas i avhandlingens diskussionsavsnitt.

Etik i läroplanen

I detta avsnitt diskuteras vilka konsekvenser det får att läroplanen föreskriver alla de tre ansatser till etikundervisning som presenterades ovan. För det första är det problematiskt att det inte görs någon explicit distinktion mellan dem, att det inte framgår att det rör sig om tre så olika sätt att förhålla sig till etikundervisning, och att det inte framgår tydligt när och varför de olika ansatserna förs fram. Detta är rimligen till problem för lärare, eftersom det blir otydligt vad etikuppdraget egentligen består i. Och det är frågan om det ens kan sägas bestå i något bestämt alls, i den mån de tre olika ansatserna faktiskt är motsägelsefulla – för då föreskriver läroplanen något som är omöjligt att genomföra. Denna problematiska situation kan förklara många av de negativa resultat som t.ex. Skolverkets utvärderingar har visat – att lärare anser det svårt att arbeta med dessa frågor, att skolorna faktiskt inte verkar göra det särskilt mycket, osv. Det kan också förklara varför det råder konflikter mellan elevernas resonemang och värdegrundens principer och värden (som vi ska se nedan).

Vad man alltså åtminstone bör göra är att göra det mer explicit vilken ansats som är tänkt att ha vilken roll, och varför. Detta skulle underlätta för lärarna att tolka etikuppdraget, och

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[161] Riktighetskriterier är principer som avgör huruvida en handling är korrekt eller inte, medan beslutsmetod är ett sätt att avgöra hur man ska handla i praktiska fall (Tännsjö. 1998).

därmed att arbeta med det i praktiken. Det bör också studeras ytterligare huruvida dessa ansatser faktiskt är förenliga med varandra. Men eftersom det verkar som att de inte är det bör en förändring göras i läroplanen, så att den inte ger motstridiga uppdrag. Detta kommer jag att återkomma till nedan.

Motsägelse med värdegrunden

I resultaten om elevernas resonemang om teknikval framkom att eleverna resonerade på ett sätt som strider mot de värden och principer som ingår i värdegrunden. Besläktade resultat har framkommit tidigare. Exempelvis visade Norberg (2006) att elevernas faktiska handlande i flera fall stod i konflikt med värdegrunden, medan min studie alltså handlar om elevernas *resonemang*. Resultaten kompletterar därför varandra. Exempel på sådana konflikter med värdegrundens värden var att eleverna gav uttryck för att personer inte ska behandlas som lika värda, t.ex. baserat på ålder eller eventuell kriminell bakgrund. De gav också uttryck för resonemang som tycks strida mot idén att alla individer har vissa mänskliga rättigheter som inte får brytas, vilken förespråkas i värdegrunden. Det finns flera potentiella förklaringar till dessa konflikter med värdegrunden. En sådan är att värdegrunden helt enkelt är motsägelsefull, vilket skulle göra det inte så förvånande att vissa elever bryter mot den. En annan är som sagt den konflikt mellan olika ansatser till etik som diskuterats ovan.

Konsekvenser för den s.k. "social-kognitiva domänteorin" diskuteras också i avhandlingen. Det tycks som att en förespråkare för teorin, på grund av dessa konflikter mellan elevernas resonemang och värdegrunden, måste ge upp idén att skolan bör försöka bedriva värdeöverföring.

Onlinesäkerhet

Om man jämför resultaten om elevernas resonemang om internetanvändande ser man att deras resonemang stämmer överens med de positioner som vuxna brukar förespråka. Det finns alltså vissa skäl att tro att viss värdeöverföring har förekommit, alternativt att eleverna har övertygats om rimligheten i dessa principer och förhållningssätt på något sätt. Det senare är dock mindre troligt, eftersom tidigare studier av ungdomars *faktiska* internetanvändande går stick i stäv med vad eleverna har givit uttryck för här. Det är otroligt att de elever som deltog i denna studie agerar diametralt annorlunda från hur elever typiskt gör, och det är därför troligt att det råder en diskrepans mellan vad de säger och vad de gör. Dessutom var det flera av eleverna som själva kritiserade dessa principer genom att ge ganska förödande motargument, utan att för den sakens skull komma till slutsatsen att principerna i fråga inte var giltiga. Således kan man ganska säkert utesluta att eleverna övertygats om rimligheten i positionerna.

Ovanstående är intressant av flera anledningar. Ett av dem är att det faktum att eleverna *påstår* att en viss uppsättning principer är korrekta (även om de inte egentligen verkar tycka det) gör att det finns en risk att vuxna i deras omgivning får den falska uppfattningen att eleverna är skyddade av dessa principer, vilket de ju inte är, eftersom de inte följer dem. Detta leder till att chansen att ett samtal mellan vuxen och ungdom kan uppstå, ifall problem dyker

upp, är mindre. Dessutom minskar möjligheten att eleven explicit hittar rimliga principer att agera utifrån. Det kan också göra att den unga personen är mer utsatt ifall den stöter på risker online, eftersom det värdesystem som personen fått överfört till sig inte fungerar, och det då uppstår ett sorts vakuum, vilket i sig skulle kunna göra att ungdomen får uppfattningen att vad som helst då är acceptabelt (vilket vissa av dem också ger uttryck för i intervjuerna). Dessutom verkar det som att eleverna inte riktigt förstår skälen bakom de principer som de blivit fostrade att (åtminstone påstå sig) följa, vilket kan leda till felaktiga tillämpningar av principerna. Det är mindre troligt att man följer en princip som man inte kan motivera. Det är också svårare att tillämpa dem i nya situationer, vilket är problematiskt i relation till internet, eftersom tekniken förändras så snabbt. Ett exempel på denna problematik är principen att inte dela information till någon man inte känner, vilken många av eleverna gav uttryck för. De förstår inte riktigt motiveringen för denna princip (vilket är ett typiskt resultat av värdeöverföring, som ju inte handlar om skäl och resonemang, utan om att helt enkelt följa vissa principer), och samtidigt verkar de ha en idé om vänner på nätet som är sådan att en vän till en vän också är en vän, samt att vissa av dem blir vänner med någon på nätet om den personen "verkar intressant". Således kan de få för sig att den princip som var avsedd att skydda dem faktiskt legitimerar att man delar information till en sådan "vän", och tidigare forskning visar mycket riktigt att omkring hälften av ungdomarna i tidiga tonåren givit personlig information till personer de aldrig träffat IRL, och att omkring en tredjedel av flickorna hade stämt möte med och träffat en person som de tidigare bara haft kontakt med online.

Existensen av denna typ av värdeöverföringsförsök är problematisk på en rad olika sätt. För det första riskerar det, som sagt, att leda till en falsk trygghet hos de vuxna, eftersom de tror att den unga personen omfattar värden som den faktiskt inte omfattar (eller inte har tillägnat sig på ett sådant sätt att den förstått principen tillräckligt bra för att kunna tillämpa den). För det andra riskerar det att faktiskt utsätta den unga för ökad fara jämfört med om man inte hade haft dessa principer alls. För det tredje försvårar den ett ärligt samtal kring dessa frågor, eftersom ett sådant skulle leda till att den vuxna får veta att den unga inte accepterar de principer som den (enligt värdeöverföringsansatsen) ska acceptera, vilket är ett problem i en sådan pedagogisk situation, där, som Wyndhamn (2013) har visat, lydnad och foglighet är viktiga element. För det fjärde så kostar det förstås energi att utföra sådan värdeöverföring, energi som kunde spenderas på annat, och det kostar också potentiellt "förtroendekapital" för den vuxna.

Variationer

I resultatdelen presenterades sex nya former av variationer i elevers moralresonemang. Dessa har en intressant innebörd för ansatserna till etikundervisning, vilket tidigare variationer (som inte var baserade på distinktionen mellan riktighetskriterium och beslutsmetod) på samma sätt kan göra. Exempelvis är existensen av interpersonella variationer problematiska för en skola som bedriver värdeöverföring, medan existensen av intrapersonella variationer inom riktighetskriterienivån är särskilt problematiska för en skola som bedriver undersökande etik, problematiska i den meningen att existensen av respektive sorts variationer är ett tecken på att

den aktuella undervisningen inte har önskad effekt. Detta är ett exempel på hur den nya distinktionen ger möjlighet till nya och mer nyanserade studier.

Jag visar också hur de förklaringsmodeller som förespråkas inom den social-kognitiva domänteorin inte förmår att förklara vissa av de typer av variationer som visades i denna studies resultat. Exempelvis kan man inte med hjälp av den teorin förklara existensen av intrapersonella variationer inom riktighetskriterienivån.

Extremism

I detta avsnitt diskuterar jag de olika ansatsernas förmåga att motverka att ungdomar blir påverkade av extremistiska budskap som de kommer i kontakt med online. Utifrån en rapport från Säpo och BRÅ (Korsell et al., 2009) diskuterar jag fem villkor som en fungerande pedagogisk insats behöver uppfylla.

Det första villkoret är att utmana den svartvita världsbild som de extremistiska grupperna ofta utmålar. Rapporten noterar att en öppen och undersökande dialog, med fokus på resonemang och att den unga får bli lyssnad på, är avgörande. Detta ligger helt i linje med den undersökande ansatsen, som alltså uppfyller detta villkor väl, till skillnad från de två andra ansatserna. En undersökande ansats kan träna eleverna att se mer nyanserat på olika frågor, att kunna inta och förstå ett annat perspektiv, att förstå andra människors uppfattningar och att respektera andra uppfattningar, enligt tidigare forskning om filosofiska samtal med barn.

Det andra villkoret ur rapporten är att träna eleverna i kritiskt tänkande, för att ge dem verktyg att kritiskt granska sådant de kommer i kontakt med på internet. Återigen är detta precis vad den undersökande ansatsen leder till, vilket dock inte någon av de andra två gör – allra minst värdeöverföringsansatsen.

Det tredje villkoret handlar om att motverka anti-demokratiska tendenser, och att istället träna eleverna i demokrati. Som vi kommer att se nedan är detta något som den undersökande ansatsen klarar av mycket bra, medan värdeöverföringsansatsen inte gör det – trots att man kunde tro att den skulle det eftersom det talas om att "lära ut" demokratiska värderingar. Men sådana demokratiska värderingar är mycket svåra att lära sig på det sätt som värdeöverföringsansatsen går till väga, och dessutom saknas det många demokratiska förmågor och förhållningssätt som bäst utvecklas i en genuin dialog – alltså i utbildning i enlighet med den undersökande ansatsen. Det har också visat sig att sådan undervisning leder till att man även utvecklar demokratiska värderingar. Den undersökande ansatsen, inte minst filosofiska samtal, är djupt demokratisk i sig. Återigen är det alltså enbart den undersökande ansatsen som kan uppfylla villkoret.

Det fjärde villkoret handlar om att motverka intolerans. Det har visats i tidigare forskning att elever som får delta i filosofiska samtal, alltså en slags undervisning i enlighet med den undersökande ansatsen, bl.a. utvecklar tolerans, förståelse för andras tankar och idéer samt ökad benägenhet att lyssna på andra, vilket motverkar intolerans. Även en deskriptiv ansats, i att man får lära sig att olika personer har olika uppfattningar i många frågor, kan ha en viss positiv påverkan på tolerans. Värdeöverföringsansatsen, däremot, har ju som sin grundförutsättning att skolan inte tolererar undantag från de gemensamma värdena, så det rimmar inte väl med tolerans.

Det femte, och sista, villkoret handlar om att erbjuda ungdomar ett alternativt forum för att närma sig ideologier. Det öppna samtal som den undersökande ansatsen kan ge är ett ypperligt sådant exempel, som kan ge ungdomarna den chans att fundera kring livets stora frågor som, enligt rapporten, många av de ungdomar som fångas av extremismen har ett behov av.

Vad som framkommer är att etikundervisning i enlighet med den undersökande ansatsen har goda förutsättningar att motverka att eleverna påverkas av extremistiska budskap på internet, medan de andra ansatserna inte har det. Detta talar till fördel för den undersökande ansatsen.

Tre argument för etik i skolan

Jag presenterar tre argument för att ha etik i skolan, vilka alla innehåller den mångtydiga frasen "etik i skolan". Dessa kallar jag "medborgarargumentet", "livskvalitetsargumentet" respektive "verktygsargumentet".

Medborgarargumentet börjar med antagandet att skolan har ett ansvar för att utbilda och fostra eleverna till goda samhällsmedborgare. Därefter kommer argumentet att etik i skolan skulle bidra till detta. Därför bör det undervisas om etik i skolan.

Livskvalitetsargumentet utgår från antagandet att skolan har ett ansvar för att bidra till att eleverna lever ett gott liv. Därefter kommer argumentet att etik i skolan skulle bidra till detta. Därför bör det undervisas om etik i skolan.

Verktygsargumentet börjar med antagandet att eleverna skulle prestera bättre och lära sig mer i de andra ämnena om de hade etikundervisning i skolan (till skillnad från mer av samma). Därför bör det undervisas om etik i skolan.

För att veta hur starka dessa argument är behöver vi mer precist säga vad "etik i skolan" betyder i respektive argument. De ansatser som figurerat genom hela avhandlingen gör just detta. Genom att låta respektive ansats precisera frasen "etik i skolan" får vi då nio argument (tre för respektive ansats). Genom att studera rimligheten i vart och ett av argumenten får vi dels en bild av de olika ansatserna och vad som talar för respektive emot dem, dels en förståelse för etik i skolan i allmänhet.

Medborgarargumentet

Medborgarargumentet börjar med antagandet att skolan har ett ansvar för att utbilda och fostra eleverna till goda samhällsmedborgare. Exempelvis skriver Skolverket (2000, s. 7) att "Skolor och förskolor har ett uppdrag att utveckla demokratisk kompetens hos barn och unga, vilket innefattar att verka i demokratiska former, utveckla demokratiska samhällsmedborgare och ge barn och unga kunskap om demokratins innehåll och form.".

Den deskriptiva ansatsen lyckas varken särskilt bra eller dåligt med att utbilda goda medborgare. Det kan antas vara en del, men inte den viktigaste delen, av en lyckad medborgarutbildning att hjälpa eleverna att nå en viss förståelse för andra människors uppfattningar. Men de viktigaste delarna av en medborgarutbildning (åtminstone i en demokrati) är sådana saker som får eleverna att utveckla sin förmåga att bilda sig en egen

uppfattning, ta ställning och fatta beslut, att kommunicera med andra människor (om bl.a. värdefrågor), att argumentera för sin uppfattning samt bedöma vilka av andra personers argument och positioner som är rimliga, och vilka som inte är det, samt att kunna tänka kritiskt (kring t.ex. värdefrågor). Detta kan den deskriptiva ansatsen inte bidra till.

Värdeöverföringsansatsen lyckas ganska dåligt med att göra medborgarargumentet beviskraftigt. Att överföra vissa värden till eleverna kan verka som ett bra sätt att utbilda goda framtida medborgare. Men det visar sig finnas en hel del problem för den ansatsen att göra det, åtminstone i en deliberativ demokrati, där sådana förmågor och förhållningssätt som de som diskuterats ovan är avgörande. Dessa kan värdeöverföringsansatsen inte bidra till att utveckla, snarare tvärtom är den ett hinder för utvecklingen av dessa. Många menar att en öppen dialog är en grundförutsättning för en demokratisk utbildning, och eftersom jag har visat i avhandlingen att värdeöverföringsansatsen troligtvis är oförenlig med en öppen dialog så verkar det svårt att tro att den bidrar effektivt till en demokratisk utbildning. Skolverket skriver att det finns tre grundläggande delar av det demokratiska uppdraget:

> Den första delen handlar om att barnen och eleverna ska få kunskap om mänskliga rättigheter och demokrati. Den andra delen handlar om inflytande och delaktighet och den tredje delen handlar om att utveckla demokratisk kompetens i form av kommunikativa förmågor. (Skolverket, 2011b, s. 40)

Den undersökande ansatsen gör argumentet mycket starkt och beviskraftigt. Tidigare forskning visar att deltagande i en etikundervisning i enlighet med den undersökande ansatsen, i form av filosofiska samtal, utvecklar just sådana centrala förmågor för gott demokratiskt medborgarskap som nämnts ovan, att det utvecklar demokratiska förmågor och ett demokratiskt förhållningssätt, samt lägger grunden för ett aktivt medborgarskap. Och eftersom den undersökande ansatsen, till skillnad från värdeöverföringsansatsen, är förenlig med en genuin dialog, och eftersom det är den ansats som kan göra anspråk på att ha goda chanser att utveckla sådana förmågor och färdigheter, så verkar den vara nödvändig för en demokratiutbildning. Skolverket har skrivit att:

> I samtal kan olika uppfattningar och värderingar brytas mot varandra. Samtalet innefattar både en strävan efter att individen själv gör etiska ställningstaganden genom att lyssna, överväga, söka argument och värdera, samtidigt som samtalet utgör ett viktigt instrument för att utveckla förståelse för sina egna och andras åsikter. En verksamhet som arbetar för att stärka relationerna – och som använder sig av samtal där alla har möjlighet att deltaga – uppfyller både det krav som finns på demokratiska arbetsformer och deras möjlighet att utveckla barns och ungas demokratiska kompetens. (Swedish National Agency of Education, 2000, s. 8)

Den undersökande ansatsen är den enda ansatsen (av de här diskuterade) som kan möta detta mål. Dess arbetsformer är, till skillnad från värdeöverföringsansatsen, djupt demokratiska, och den utvecklar just dessa förmågor och den förståelse som efterfrågas.

Livskvalitetsargumentet

Den deskriptiva ansatsen lyckas inte göra livskvalitetsargumentet beviskraftigt. Det verkar inte som att den kunskap som skolan enligt den deskriptiva ansatsen bör se till att eleverna lär sig är av någon större nytta för att öka elevernas livskvalitet.

Värdeöverföringsansatsen lyckas medelbra med att göra argumentet beviskraftigt. Dewey har argumenterat framgångsrikt för att denna typ av moraliskt tänkande inte är användbart i situationer där omständigheterna, t.ex. samhället eller teknologin, förändras. Det som då behövs, menar Dewey, är en förmåga att resonera om etik, att tänka kritiskt om etik och genom undersökning komma fram till ett rimligt sätt att förhålla sig till situationen. Detta kan värdeöverföringsansatsen inte bidra till.

Den undersökande ansatsen, dock, kan göra precis detta. Forskning har visat att deltagande i filosofiska samtal, alltså etikundervisning i enlighet med den undersökande ansatsen, har positiv påverkan på självkänsla och självförtroende, på pro-socialt beteende, ger emotionell mognad och bidrar till utvecklandet av färdigheter och förmågor som är av vikt för att kunna orientera sig i livet och ta ställning i livets viktiga (och svåra) frågor. I enlighet med detta säger Merry (2007, s. 55) att "barnets välbefinnande är av största vikt […] och ett av de bästa sätten att främja [detta] är att tillhandahålla en utbildning som har god chans att främja barnets autonomi." UNESCO (2009) noterar också att tankefrihet (i detta fall i moraliska frågor) är en av barnets rättigheter enligt barnkonventionen, och att deltagande i filosofiska samtal kan bidra till att barnet utvecklar och bibehåller denna frihet. Ingen av de andra två ansatserna kan dock sägas bidra till detta. En etikundervisning i enlighet med den undersökande ansatsen kan också ha ett terapeutiskt värde och hjälpa barnet att hantera svåra situationer. Fisher (2007, s. 615) har också påpekat att "vår livskvalitet beror på kvaliteten hos vårt tänkande och vår förmåga att kommunicera och diskutera detta med andra" och noterar även att deltagande i filosofiska samtal övar både förmågor att lyssna på och kommunicera med andra, samt utvecklar deltagarnas tankeförmåga, vilket också visats i tidigare forskning, som vi sett.

Verktygsargumentet

Undervisning i etik i enlighet med den deskriptiva ansatsen har rimligen viss positiv påverkan på elevernas prestationer i samhällsvetenskapliga ämnen, men i övrigt har varken denna ansats eller värdeöverföringsansatsen någon möjlighet att göra verktygsargumentet beviskraftigt. Den undersökande ansatsen, å andra sidan, har det, eftersom det har visat sig att dialogisk undervisning i allmänhet, och deltagande i filosofiska samtal i synnerhet, har positiv påverkan på en rad områden som har positiv påverkan på elevernas övriga skolgång. Flera studier har, som vi har sett, t.ex. funnit att det ger ökad läsförståelse, positiv påverkan på matematikresultat, ökad förmåga till argumentativt skrivande, förbättringar i kritiskt tänkande, logiskt tänkande och problemlösning, samt i kreativt tänkande, och ökad intelligens i allmänhet. Deltagande i filosofiska samtal utvecklar förmågan att lyssna på och förstå andras tankar och resonemang, och det har visat sig skapa en god lärmiljö, med ökad trygghet, ökat samarbete och bättre relationer, ökat engagemang och ökad uppskattning hos eleverna. Det har också visat sig att deltagande i filosofiska samtal ger bättre skolresultat och akademiska

prestationer i allmänhet. Därför är det rimligt att anta att etikundervisning i enlighet med en undersökande ansats skulle bidra positivt till den övriga undervisningen och skolsituationen.

Sammanfattande bedömning av argumentens styrka

Resonemanget ovan kan sammanfattas i en tabell, vilken i avhandlingen kallas "Table 8":

Tabell 8.Värdering av argumenten.

	Deskriptiva ansatsen	Värdeöverför-ingsansatsen	Undersökande ansatsen
Medborgarargumentet	Medel	Ganska svagt	Starkt
Livskvalitets-argumentet	Svagt	Medel	Starkt
Verktygsargumentet	Ganska svagt	Ganska svagt	Starkt

Detta visar att den undersökande ansatsen förmår göra alla argumenten starka, medan ingen av de andra ansatserna klarar av det. Det talar till fördel för den undersökande ansatsen. Men det visar också att det finns tre mycket starka argument för att ha etik i skolan (i enlighet med den undersökande ansatsen), vilket vi ska återkomma till nedan.

Metaetik

I detta avsnitt diskuterar jag de olika ansatsernas förenlighet med två metaetiska positioner, för det första *moralisk realism* (tanken att det finns vissa objektivt sanna värden), och för det andra *moralisk relativism* (tanken att värden bara är sanna relativt någon individs, eller grupps, tänkande om dessa värden).

Det visar sig att den ansats som bäst samstämmer med den moraliska realismen (undantaget vissa extrema varianter av den) är den undersökande ansatsen. Detta är intressant, eftersom man kunde tänka att den moraliska realismen skulle stämma väl överens med värdeöverföringsansatsen. Om det finns vissa objektiva värden bör väl dessa helt enkelt läras ut till ungdomarna, kunde man tänka. Men för det första finns problemet att bara för att det finns en sanning därute så innebär det inte att någon viss individ med säkerhet kan veta vilken denna sanning är. Om man alltså har en viss ödmjukhet inför sin egna kunskapsmässiga situation så inser man att saken inte är så enkel. Därifrån är det då nära till hands att sluta sig till att det verkar rimligt att se till att var och en, genom den undersökande ansatsen, lär sig att själv värdera och kritiskt granska olika moralutsagor och argument, för att själv kunna bilda sig en uppfattning om vilka moralpåståenden som är rimliga (och därmed mer troligt sanna än de som inte är rimliga) och vilka som inte är det. För det andra finns det, som vi sett ovan, rent pedagogiska invändningar mot värdeöverföringsansatsen, och det finns skäl att tro att den

inte är ett hållbart sätt att få elever att omfatta vissa värden, ens givet att man vet vilka värden man vill få dem att omfatta.

Givet den moraliska relativismen finns återigen samma pedagogiska problem som ovan gällande värdeöverföringsansatsen. Men frånsett dessa verkar värdeöverföringsansatsen förhållandevis rimlig givet vissa former av moralisk relativism. Dock aktualiseras Deweys invändning igen, om än ännu starkare i detta sammanhang: om värden är relativa, så kan de förändras, men att då fostra eleverna i en viss uppsättning värden framstår som problematiskt ifall dessa sedermera kommer att förändras, och sluta gälla. Då verkar det bättre, i enlighet med vad Dewey säger, att lära eleverna själva att förhålla sig till värden, genom att träna dem i moraliskt tänkande. Men detta gör inte värdeöverföringsansatsen, utan det är den undersökande ansatsen som gör detta. Mest rimlig givet den moraliska relativismen tycks kanske ändå den deskriptiva ansatsen vara, eventuellt tillsammans med ett inslag av den undersökande ansatsen.

Måste utbildning innebära värdeöverföring?

Många verkar vara av uppfattningen att utbildning ofrånkomligen innebär värdeöverföring, och att värdeöverföringsansatsen är nödvändig. Exempelvis säger Skolverket, genom Hörnqvist och Lundgren (1999, s. 12), att "All undervisning innebär fostran i någon mening". De säger också att skolan "är inte och kan inte vara värdeneutral. Läroplanen anger de oförytterliga värden som allt arbete måste vila på. Dessa värden kan inte förhandlas bort av rationella skäl. Detta innebär att dessa värden kommer först men också alltid samtidigt" (Hörnqvist & Lundgren, 1999, s. 11). De säger också att fostran är "att överföra grundläggande värden, regler och handlingskompetens" (Hörnqvist & Lundgren, 1999, s. 12). Det sistnämnda (handlingskompetens) är ju ett uttryck för något som den undersökande etiken har som mål, men de andra formuleringarna pekar ju klart på en värdeöverföringsansats. Dessa resonemang och slutsatser verkar dock vila på några missförstånd.

För det första tycks dessa argument vila på tanken att förändringar i samhället, särskilt värdepluralism, nödvändiggör värdeöverföring. Men Dewey såg liknande förändringar och kom till den helt omvända slutsatsen, som vi har sett, att det enda raka är att lära barnen att tänka själva om etik, så att de kan hantera dessa förändringar, eftersom den gamla tidens moral inte kan appliceras på den nya tiden. För det andra poängterar Colnerud och Thornberg (2003) att i ett samhälle där värdepluralism råder kommer en värdegrund att strida mot vissa personers värden – och vems värden ska då gälla? Norberg (2001) påpekar att detta tenderar att exkludera vissa individer från skolans verksamhet.

Argumentet att skolan inte kan vara värdeneutral eftersom den alltid har påverkan på värden, och eftersom värden alltid kommer till uttryck, kan visas felaktigt genom den distinktion som Lipman (ex. Lipman, Sharp & Oscanyan, 1980) gör mellan substantiella värden och procedurala värden. De senare är värden som anger hur en viss aktivitet ska bedrivas, t.ex. hur samtal ska föras i skolan, men är inte värden som är avsedda att gälla utanför samtalen. Andra procedurala värden är sådana som att argument i ett visst samtal ska värderas utifrån sitt innehåll, inte utifrån vem som har sagt dem. De är en grund för att göra samtalen

möjliga, eller effektiva. I Lipmans fall gäller det samtal samtal där värden kan diskuteras kritiskt. Procedurala värden är värden som handlar om *hur* man bör tänka (eller agera), inte *vad* man bör tänka. Eventuellt måste vissa procedurala värden användas och komma till uttryck i skolan, men det verkar inte som att substantiella värden behöver göra det. Dessutom är det fullt möjligt för en förespråkare för den undersökande etiken, och en dialogisk undervisning i allmänhet, att man sätter upp vissa förhållningsregler i verksamheten. För det första kan dessa själva vara föremål för kritisk granskning, och för det andra kan man sätta upp regler och helt enkelt säga att "det är såhär vi gör här på skolan, men det betyder inte att ni måste göra så någon annanstans", och således lämna öppet för en genuin och öppen dialog om värden utan att fostra eleverna i något särskilt förutbestämt värde. Slutligen kan det påpekas att det faktum (om det nu är ett faktum) att skolan *har konsekvenser* för elevernas värderingar är ju något annat än att man måste *på förhand avgöra* vilka värderingar de ska komma att ha.

Slutsatsen är att utbildning inte måste innebära någon värdeöverföringsansats.

Ansatsernas pedagogiska rimlighet

Nu är det dags att summera vad som talar till för- respektive nackdel för de olika ansatserna. Den undersökande ansatsen är den ansats som har absolut mest som talar för den, och dessutom minst som talar emot den. Den gör de tre diskuterade argumenten för etik i skolan beviskraftiga, den verkar kunna vara ett framgångsrikt sätt att motverka extremismens påverkan på unga online, den verkar vara en förutsättning för en demokratisk utbildning, den har i tidigare forskning visat sig ha stor positiv påverkan på elevernas utveckling på bred front och i alla andra ämnen, samt för social och emotionell utveckling, och den är förenlig med en dialogisk undervisning i allmänhet. Detta innebär också att den oförenlighet som verkar råda mellan den undersökande ansatsen och värdeöverföringsansatsen talar till stor nackdel för värdeöverföringsansatsen. Denna ansats är den som har mest som talar emot sig, men den har trots allt också lite mer som talar för sig än den deskriptiva ansatsen. Slutsatsen är att man bör bedriva etik i skolan huvudsakligen enligt den undersökande ansatsen.

Etik som ett eget ämne

Det material som presenterats hittills leder fram till frågan huruvida etiken i den svenska skolan bör vara ett ämne i sig självt, eller ett övergripande perspektiv, eller bådadera, eller inget alls. Låt oss börja med den sista möjligheten: att det inte bör vara någon etik alls i skolan. Detta förefaller nog uppenbart orimligt för de flesta, och dessutom har vi sett en rad beviskraftiga argument för att ha etik i skolan, särskilt om vi med etik i skolan förstår etik enligt den undersökande ansatsen, så denna position är helt enkelt inte rimlig.

Bör då etiken vara enbart ett övergripande perspektiv i skolan, så som nu är fallet? Att försvara denna position skulle kräva för det första att man visar att etiken bör vara ett övergripande perspektiv i skolan, och för det andra att det inte bör vara ett ämna i sig självt. Låt oss återigen börja med det första. Återigen har vi sett många argument för att ha etik i skolan, och flera av dem (inte minst verktygsargumentet) ger skäl att betrakta det som rimligt

att ha etik som ett övergripande perspektiv, dels för att etiken berör de allra flesta ämnena i skolan (vilket t.ex. visar sig genom att det förekommer skrivningar om etik i alla utom två av kursplanerna – och dessutom gäller ju de allmänna delarna för alla kurser) och dels för att de färdigheter som kan utvecklas genom deltagande i undersökande etikundervisning är av nytta för (i princip) alla ämnen, som vi har sett. Men betyder detta att det inte ska vara ett eget ämne? Nej, det gör det inte. Det finns t.ex. ett historiskt övergripande perspektiv, men också ett historieämne. Och det faktum att det är gynnsamt för elevens utveckling inom så gott som alla ämnen att eleven kan läsa betyder inte att det inte ska finnas (minst) ett ämne som är särskilt ansvarigt för läsning. Tvärtom: Om någon förmåga är ett viktigt verktyg i många ämnen så talar detta för att någon ska ansvara för att eleverna verkligen lär sig hantera detta verktyg väl. Att t.ex. förmågan att kunna lösa ekvationer är viktig när man studerar t.ex. fysik eller ekonomi kan väl knappast ses som ett gott argument för att ta bort matematikämnet och istället hoppas att eleverna lär sig matematik genom att studera de andra ämnena, utan är ju ett gott argument att träna (och testa) ekvationslösning och andra matematiska förmågor och kunskaper inom ett specifikt ämne. Om något så talar alltså det faktum att etiken är ett bra verktyg i många ämnen för att etik bör vara ett eget ämne, eller hanteras av dess akademiska överämne (filosofiämnet) på samma sätt som svenskämnet ansvarar för lästräning (på svenska) och matematikämnet ansvarar för ekvationslösning. Vad kan då tala emot att ha ett särskilt ämne som ansvarar för etiken? För det första en konservatism, vilket inte är helt orimligt. Man bör kanske inte ändra något om det inte finns starka skäl för att göra det. Men i detta fall finns det starka skäl, som vi ska se nedan, så konservatism är inte ett tillräckligt argument. Vi kommer alltså att återkomma till detta. Ett andra möjligt skäl att inte ha det har att göra med ekonomi. Det är kostnader förenade med att göra förändringar. Vidareutbildning behöver kanske ske, saker behöver förändras, något annat behöver nedprioriteras osv. Det finns dock inga skäl att tro att det skulle vara mer kostsamt i längden med ett etikämne än med något annat, och därför är detta knappast något bra skäl. Om någonting så har det visat sig att typiska interventioner i enlighet med den undersökande ansatsen, såsom filosofiska samtal, kan göras mycket kostnadseffektivt, mer så än många jämförbara interventioner.

Låt oss därför övergå till frågan om det är så att etiken enbart bör vara ett eget ämne. Nej, detta kan vi redan svara "Nej" på i och med att det finns så starka argument för att det bör vara ett övergripande perspektiv. Därför återstår bara att mer djupgående diskutera frågan om det också bör vara ett ämne i sig.

Vi har sett att etik bör vara ett övergripande perspektiv. Men det finns också starka skäl för att det även bör finnas ett ämne med särskilt ansvar för etik. Det första är precis det faktum att det bör vara ett övergripande perspektiv. Jämför återigen med historia, läsning eller matematik. I själva verket så har alla de andra övergripande perspektiven ett ämne som är direkt ansvarigt för grundläggande kompetens inom detta perspektiv. Vilket ämne ska då vara ansvarigt för etiken? Vissa kunde mena att etiken kan höra hemma i religionskunskapen, som i dagsläget har ett stort ansvar för etiska frågor, men detta är otillräckligt av flera skäl. För det första har studier visat att etiken behandlas alltför styvmoderligt i religionskunskapsämnet (Swedish National Agency for Education, 2016). Och det finns nog en anledning till detta. Precis som man kan göra en distinktion mellan tre ansatser till etikundervisning kan man göra en analog distinktion mellan olika ansatser till religionskunskapsundervisning: en *deskriptiv*

ansats (enligt vilket skolans uppdrag är att eleverna ska lära sig vissa deskriptiva fakta om tro och religion, såsom vilka världsreligionerna är, vilka centrala trosföreställningar som råder inom dessa, hur vanliga olika trosuppfattningar är på olika platser, bland olika grupper och i olika tider, osv.), en *överföringsansats* (enligt vilken skolans uppdrag är att få eleverna att tro på en viss religion, att omfatta vissa religiösa uppfattningar, osv.), och en *undersökande ansats* (enligt vilken eleverna ska lära sig att kritiskt förhålla sig till religioner, att granska vilka trosföreställningar som är rimliga, vilka som är orimliga, osv., och lära sig att argumentera för och emot olika religiösa uppfattningar och positioner). Jag har inte gjort en så grundlig analys som den jag har gjort av hur de etiska ansatserna föreskrivs i läroplanen, men en snabb genomläsning av religionskunskapens kursplan ger att de gånger som en undersökande ansats föreskrivs är enbart då det handlar om etik (och vissa andra, mer diffust beskrivna filosofiska frågor), men i fråga om religioner är det den deskriptiva ansatsen som föreskrivs. Att inta en undersökande ansats skulle nog av många i den svenska utbildningsdiskursen uppfattas som kontroversiellt, och därför är det svårt att blanda dessa två uppdrag inom ramen för samma ämne. En "alla har rätt"-hållning, där man anser att det inte finns några felaktiga svar (eller ens några svar som är mindre rimliga än andra), är inte främjande för undersökande undervisning i etik, vilket t.ex. Skolverket (Swedish National Agency for Education, 2011b) har noterat.[162]

Det finns också andra argument för att etiken bör vara ett eget ämne i skolan, eller vara en del av ett filosofiämne. Många undersökningar har visat att lärare i nuläget upplever det som svårt, och upplever att de saknar kompetens, att hantera etiska frågor. Detta antyder nog att dessa bör få vidareutbildning, men också att det skulle behövas ett visst ämne där någon med särskilt intresse och kompetens skulle ansvara för att etik behandlades i skolan (vilket flera undersökningar funnit att det i mångt och mycket nu inte görs). Detta skulle förmodligen inte leda till att det blev mindre etik i andra ämnen (jämför med läsningen), eftersom eleverna då skulle besitta färdigheter och förmågor, och eftersom de lärare som hade särskilt ansvar för etik skulle kunna bidra positivt i kollegiet.

Både denna studies resultat, och tidigare forskning som har behandlats, har också visat att det i dagsläget är en hel del som inte fungerar med skolans värdeuppdrag. Detta antyder att det inte räcker att ha etik enbart som ett övergripande perspektiv, utan att det behövs att man också arbetar särskilt med etiken (jämför återigen med skrivande, eller med det historiska perspektivet). Detta kan ske inom ett särskilt ämne för etik, eller inom ett filosofiämne.

Sammanfattningsvis verkar det alltså som att det mesta talar för att etiken bör fortsätta att ha rollen som ett övergripande perspektiv, men (i synnerhet med tanke på att den undersökande ansatsen är den mest rimliga) att det också bör finnas ett särskilt ämne med ansvar för etik: ett etikämne eller ett filosofiämne.

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[162] Ett möjligt alternativ till att ha ett eget etikämne vore som sagt att låta etiken ingå i ett nytt filosofiämne, som genomgående skulle präglas av en undersökande ansats i större utsträckning. Detta har flera fördelar jämfört med att ha ett eget etikämne, i likhet med att det är rimligare att ekvationslösning ingår i matematikämnet än att man har ett eget ekvationslösningsämne. Etiken, särskilt om den bedrivs genom ett undersökande perspektiv, handlar mycket om att eleverna ska lära sig argumentera rimligt i etiska frågor. Inom filosofiämnet behandlas traditionellt argumentation (eller argumentationsanalys) som ett eget område, vilket alltså torde kunna hjälpa eleverna att lära sig att argumentera bättre i etiska frågor. På samma sätt skulle att studera logik separat hjälpa eleverna att se vilka etiska positioner som är förenliga och vilka som är oförenliga med varandra.

Avslutande ord

I detta sista avsnitt skriver jag några sammanfattande och avslutande ord, utifrån vad som framkommit i avhandlingen ovan. Jag lämnar helt avsnittet om framtida forskning – den läsare som är intresserad av detta kan läsa den engelska texten.

Den första huvudsakliga slutsatsen är att den undersökande ansatsen är den ansats som har starkast pedagogiska meriter, eftersom den vida överstiger de andra två ansatserna i styrka. Alltså, den ansats som huvudsakligen bör tas av skolan är den undersökande ansatsen, och i den mån enbart en ansats bör antas, är det den undersökande ansatsen.

Den andra slutsatsen är att läroplanen bör uppdateras i fråga om etik. Åtminstone bör relationen mellan de olika ansatserna göras tydligare. Ansatserna bör uttryckligen skiljas åt, och det bör stå mer klart vilken inbördes relation de har. I den mån det stämmer att de inte är förenliga, så bör dessutom alltså någon eller några ansatser inte längre föreskrivas av läroplanen.

Den tredje slutsatsen är att mycket talar för att det bör finnas ett ämne som har särskilt ansvar för etikundervisningen i den svenska grundskolan, eventuellt i form av ett fristående ämne, eventuellt inom ett filosofiämne även i grundskolan.

Bortom värdeöverföring

Det står nu klart att det behövs en förändring i etikundervisningen. Mot bakgrund av att det råder konflikter och motsägelser mellan de ansatser till etikundervisning som alla föreskrivs av läroplanen är det inte konstigt att tidigare forskning funnit att lärare anser att det är svårt att arbeta med etiken i skolan. Jag har ovan kort beskrivit några förslag på hur en förbättring av denna situation kan se ut. Men många kanske tänker att det låter nog så svårt att tänka sig att skolan ska sluta med värdeöverföring. Vill vi inte att våra barn ska bli goda moraliska människor? Vill vi inte att de ska omfatta de värderingar vi själva håller kära? Men kritikern till värdeöverföring kunde här påpeka att detta är två olika frågor. Är inte det vi egentligen vill, att de ska omfatta våra värderingar bara i den utsträckning dessa faktiskt är rimliga? Vad vi verkligen vill är att de ska omfatta så goda värderingar som möjligt. Om vi skulle få välja mellan att våra barn kunde bli precis likadana som vi själva, eller att de skulle bli lite bättre, vilket skulle vi då välja? Vem vill att deras barn ska bli exakt som dem, om det sker på bekostnad av att de hindras från att nå en högre potential? "Därför bör vi", kunde kritikern fortsätta (förmodligen påhejad av Dewey), "hjälpa barnen att få de verktyg och förmågor som behövs för att nå rimliga moraluppfattningar, de principer som de behöver i sina egna liv." Förhoppningsvis skulle de därigenom ta efter vad som var bra från oss, och vidareutveckla det som var mindre bra. "Är inte detta", skulle kritikern säga, "det bästa vi kan önska oss, som utbildare, som medborgare, som föräldrar – det bästa vi kan önska för framtida generationer?" Att gå bortom värdeöverföring kanske inte är så underligt, ändå.

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[163] A direct translation would be "Pedagogical Philosophy", but I do not think that is what he is meaning to say. For some reason that I cannot understand, it is not uncommon in the Swedish discourse to call the Philosophy of Education "pedagogisk filosofi", although the expression "pedagogikens filosofi" would be better (and "pedagogikfilosofi" would perhaps be even better).

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[164] This is her own English translation.

Zeiler, K., Furberg, E., Tufveson, G., & Welin, S. (2008). The ethics of non-heart-beating donation: How new technology can change the ethical landscape. *Journal of Medical Ethics*, *34*(7), 526–529. doi:10.1136/jme.2007.021568

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APPENDIX

Some parts of this thesis is based upon material that has been published before, in some cases by myself and in some cases in collaboration with others, in journals and in conferences and conference proceedings.[165] In this appendix, I will list those of my prior publications from which some material has been used in this thesis, and describe in what parts and in what ways they have been used. I will also state my own part in the production of each of those prior publications.

Backman, Y., & Gardelli, V. (2015). Six forms of variety in students' moral reasoning: An age-old distinction enabling new methods and findings. *Ethics and Education*, *10*(2), 227–240.

In the production of this article, the first author was the main contributor to the initial idea of the article. Most of the interview data was, as noted in the methods section, contributed by me. I conducted 19 out of 24 interviews. I also took an active part in all of the steps of the research procedure. The text was written by both of us, although a first version of the article was written mainly by the first author.

Material from this article is used in the section "Moral reasoning," although the material is partly rewritten and this section contains much text that is not related to this article. Some material from the article is also used in the section "Interviews conducted by another PhD student." Text from this article also constitutes the core of the part of the results called "Varieties in students moral reasoning." The section "On varieties in students' moral reasoning" in the discussion is also based on material from this article, but the text is rewritten. Some ideas from the article can also be found in the "Future research" section.

Gardelli, V. (2011). *Etik i skolan: Vad och varför?* **[***Ethics in School: What and why?***]. Presented at the VIS – Värdegrundsdialog i samverkan, Luleå: Luleå University of Technology.**

I did all the work on this article, from the basic ideas to the production of all text. The text was written in Swedish, and presented at a conference.

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[165] This is in accordance with accepted practice, as stated by e.g. the Swedish Research Council (Vetenskapsrådet) in their text "God forskningssed" ["Good Research Practice"]: "It is not wrong to reuse whole sections, e.g. a whole chapter in a book, as long as the researcher states that the text is created in a different context." (Swedish Research Council, 2011, p. 110, my translation) In its paper on ethical writing, written by Roig (2006), the Office for Research Integrity (ORI) states that "the essence of self-plagiarism is [that] the author attempts to deceive the reader." Hence, if the author is clear about what has been done regarding prior publications and reuse of text, problems are dealt with in a satisfactory way. ORI also states that redundant publication is the "publication of what is essentially the same paper in more than one journal, but without any indication that the paper has been published elsewhere" (Roig, 2006, p. 16). Once again, transparency in what has been done is key. I aim for such transparency through references to my own prior publications when shorter quotes are used, and when a more considerable amount of text is based upon one of my prior publications this is declared in this appendix, which gives an overview of how prior publications have been used.

Clearly stating what part of a thesis that the PhD student has contributed her– or himself, in the case that others have been contributing too, so that an evaluation can be undertaken on the right grounds, is also necessary and mandatory, and I provide such information in this appendix.

This article contains all the main ideas and material of the article "Why Philosophical Ethics in school" (see below), including the distinction between the three approaches to ethics in school, discussing the three arguments to ethics in school, and the structure of using the approaches to obtain, and evaluate, nine different arguments.

Ideas from this article are used in the sections "Monologic and dialogic education," "Three approaches to ethics in school," "On the compatibility of the approaches," "To the critique of the trichotomous distinction," and "Three arguments for ethics in school."

Gardelli, V., Alerby, E., & Persson, A. (2014). Why philosophical ethics in school: Implications for education in technology and in general. *Ethics and Education, 9*(1), 16–28.

I wrote the text, and originated the ideas and the arguments found in this article. This is an English version of the article "Etik i skolan, vad och varför?."

Some of the text in sections "Three approaches to ethics in school," "On the compatibility of the approaches," and "Three arguments for ethics in school" is based on text from this article, although some rewriting and extension of the text from the article has been undertaken.

Gardelli, V., Persson, A., Haglund, L., & Backman, Y. (2012). Coherentism as a Foundation for Ethical Dialog and Evaluation in School – Value communication, assessment and mediation. In M. Santi & S. Oliverio (Eds.), *Educating for Complex Thinking through Philosophical Inquiry* **(pp. 197–208). Padua, Italy: Liguori.**

Persson presented the idea to write two articles to the ICPIC conference, and to base this article on a discussion about coherentism. Several initial discussions between Persson, Backman and myself were held. I wrote the text, with discussions about drafts held mainly between Persson, Backman and myself. This article is an extension of the text presented at the 2009 ICPIC conference.

Some of the texts in the "Ethics education and moral reasoning" and "Finding meaning" sections are based on text or ideas from this article.

Nilsson, D., Gardelli, V., Backman, Y., & Gardelli, T. (2015). To Colorize a Worldview Painted in Black and White. *International Journal of Humanities and Social Science*, *5*(1), 64–70.

Nilsson took the first initiative behind this article, when she wrote a student essay (in Swedish) in a course on Philosophy with Children that I and the rest of the authors were teaching, and functioned as supervisors for the essay, with me functioning as the main supervisor. In this process, several discussion meetings were held between all of the authors. We then discussed the possibility of extending it to an article, and all of us together worked on this Swedish article. After this, I rewrote and extended the text into an English journal article, with contributions from Backman and T. Gardelli.

Text and ideas from this article has been the basis of the sections "Young people's online exposure to extreme views and arguments" and "Youths' resistance against online extremist

propaganda." Some of the text in the "Monologic and dialogic education" section is rewritten text from this article.

Strömberg, C., Gardelli, V., Backman, Y., & Gardelli, T. (2012). *Svenska Hjältar lärarhandledning* [*Swedish Heroes Teacher Manual*] **(pp. 1–36). Stockholm: Aftonbladet.**
This book was written by all the authors together. The assignment was given by the management of "Svenska Hjältar" and "Aftonbladet" – first and foremost Jan Helin, Marc Levengood and Liisa Aus. The idea to write a manual for teachers, basing the classroom intervention on some short films about young "heroes" was theirs, but the content and ideas presented in the manual was produced by the authors.

Some ideas, but no text, from the manual has been used in the thesis, mainly in the section "Monologic and dialogic education".