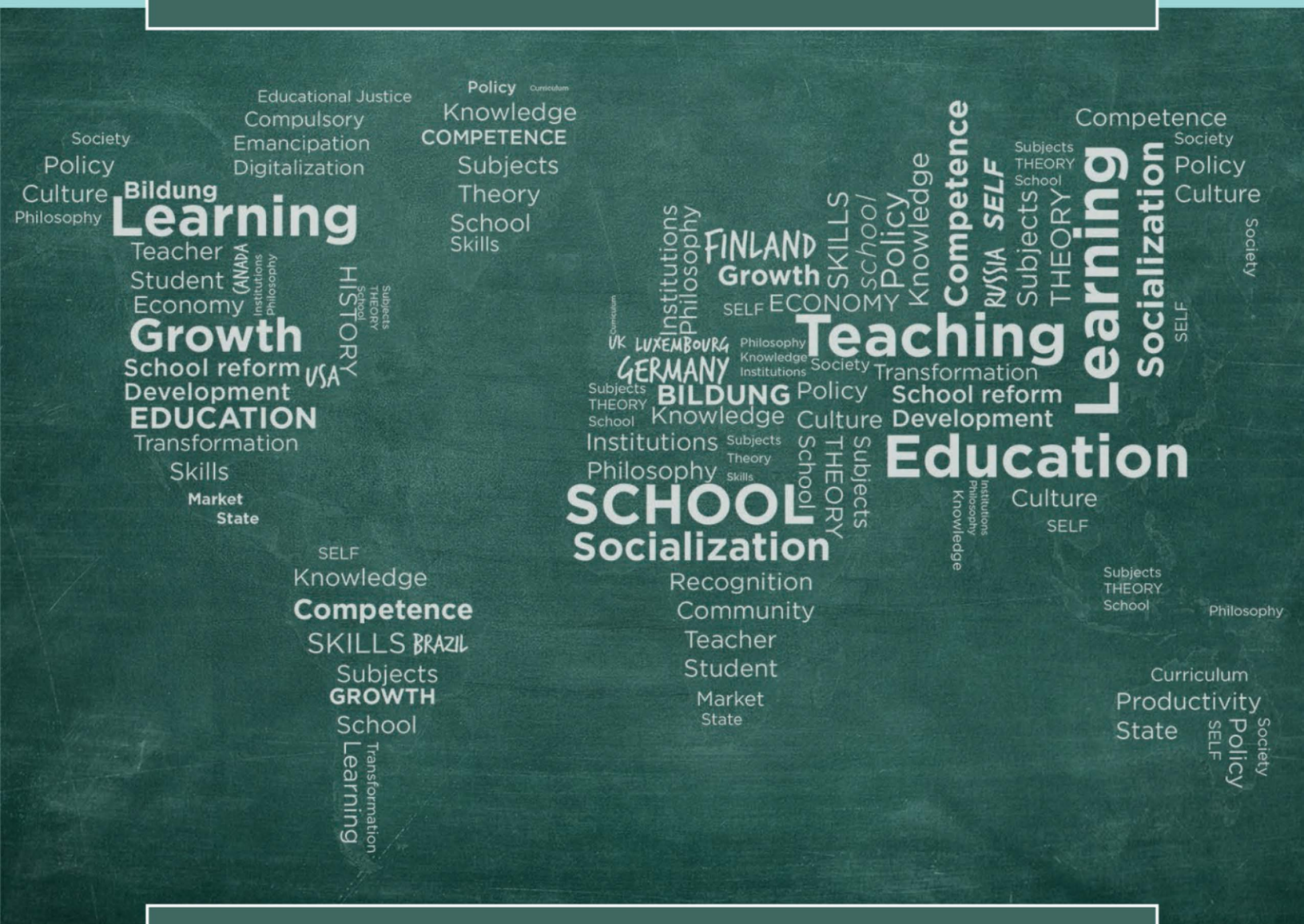
Schools in Transition

Linking Past, Present, and Future in Educational Practice

Pauli Siljander, Kimmo Kontio and
Eetu Pikkarainen (Eds.)



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PREFACE

School is one of the most central and thus also, perhaps, most debated educational institution in the modern society. We can hardly imagine any human culture without some kind of education; nor can we imagine any modern society without some kind of schooling. Schooling is a pivotal part of education – so much that most of the history of educational science is based in the research of school.

This book reflects and analyzes the function of school, and recent trends in school development. The articles of the book examine problems of school from several points of view, without striving to achieve a single, uniform view. It should be stressed that the subject area of school and schooling does not limit itself only to the institutions which are traditionally called schools, but school in the general sense, referring to all institutional forms of education, independent of student age and level.

We would like to thank all the authors, whose contributions made this book possible. We would also like to thank Sense Publishers for accepting this book for publication.

KIMMO KONTIO, EETU PIKKARAINEN
AND PAULI SILJANDER

1. A MODERN IDEA OF THE SCHOOL

The school is, without doubt, one of the most central institutions in modern Western society. The emergence of the school as a pedagogical institution is intertwined in a very fundamental way with the emergence of the modern society and modern cultural life forms. This means that the function of the school as a pedagogical institution is not solely understood in terms of functional necessities of society and economy but, additionally, in terms of its role as an institution whose task is to open up reflexive learning processes and, thus, participating also in the redefinition of social and cultural life forms. In this sense, the relation between school and society can be defined as reciprocal: although the function of the school is always determined by the factually- and historically-formed societal and economical necessities and cultural life forms, this determination is not absolute. As a pedagogical institution school is itself a crucial determinant of reformation and redefinition of the societal necessities and cultural life forms.

It naturally follows that the societal role and the functions of school has been under continuous critical debate and redefinition. In fact, this debate has been the essential part of the developmental history of the modern school system. Although the history of the critical debate about school includes also modes of radical school critics – the "de-schooling" arguments on behalf of a society without schools – the significance of the school as a social institution has been focal and increasing, at least since the 19th century in modern Western societies. However, the trends of change in the last few decades in particular have posed special challenges for the development of school systems, and a need to re-evaluate the pedagogical role of the school.

This volume discusses the pedagogical task of the school – i.e., the school as a pedagogical institution – from a number of different viewpoints. The essential questions motivating the articles in this volume are for example: How should the role and status of school be defined with respect to other social institutions? What is the educational task of school? How should the forms of pedagogical interaction and the structure of school be understood in modern society? How are the development needs of the national school systems related to global trends of change in educational policy? How are the functions of the school defined from the point of view of the economics of education?

P. Siljander et al. (Eds.), Schools in Transition, 1–15.

This book does not aim to offer unambiguous answers to these questions but, instead, to stimulate – from different point of views – the discussion of the meaning of school in contemporary societies by emphasizing its peculiar pedagogical function.

An introduction to these issues is made below, first with (1) a short historical review of the pedagogical and social evolvement of the school, and then with (2) an introduction to the articles in this volume.

WHAT IS SCHOOL – A SHORT HISTORICAL INTRODUCTION

The institutional forms of school and their development are an essential part of the general development of modernization, the early stages of which have been traditionally described in terms of a transition from pre-modern society to modern society. In other words, the rise and development of the modern school system cannot be separated from the emergence and development of modern society. And the converse is also true: the emergence of modern society cannot be separated from "modernity of pedagogy" (Koch, Marotzki, & Peukert, 1993). Although the concrete form and institutional structures of the school – such as they are understood today – have evolved over a long period of time, there is an underlying change in the world view of 'pre-modern man', which has also involved a change in thought about upbringing and education. In other words, the transition from pre-modern or traditional society to modern bourgeois society also signified a critical change in conceptions about schooling, teaching and learning processes.

This does not mean, however, that organized education has not existed before the development of the modern society. Forms of organized schooling and education can be found in all the high cultures since archaic time – as the teaching practices of Sumerian reading and writing techniques about 2500–2000 BCE, Plato's Academy and Aristotle's Lyceum in ancient Greece, convent schools in the early Middle Ages, and so on and so forth – but school as a general pedagogical institution for every citizen is a product only of modernization especially promoted by the ideas of the European Enlightenment (see e.g. Gradstein, Justman, & Maier, 2005). The exact time of the development of 'modern school', however, is neither possible nor necessary to define (see e.g. Hoffmann et al., 1992). Rather, 'a modern school' is a typological phrase (Helmer, 1993) describing the change in educational thought and institutional schooling. Keeping in mind the difficulties in defining the precise turning point from 'premodern' to 'modern' and also in defining what the 'modern' actually is, we can conceptualize, on a general level, the difference between 'premodern' and 'modern' thinking about education and schooling.

In pre-modern societies, learning and teaching processes mostly took place in close correlation with the forms of action that were typical of the very social context to which the new generation was being inducted. Basic skills and knowledge were learnt in social interaction with the family and other members of the community. The natural medium of the processes of learning and growth was quotidian praxis, where personal experiences, and social skills were gained in dynamic interaction

with other people and things. Thus, there was little call for change or 'innovations' to the basic structures of pre-modern society from the new generation –none, at any rate, that would have necessitated learning processes beyond the level of knowledge and skills of the previous generations. Typically, people in the pre-modern community would transmit and transfer 'historically constructed knowledge' and skills – i.e. tradition – in mutual reciprocal interaction without any need for a form of pedagogical interaction or institution that was differentiated from the rest of life in the community. The pedagogical concern for the individual development of forms of knowledge and interaction was part of everyday caring in the immediate symbiosis between generations. In other words, knowledge of the world, people and intercourse between people was passed from one generation to the other, as if of itself, within the framework of people living together. This meant that pre-modern or traditional societies did not have a need for pedagogical institutions or special pedagogical professions, or, for that matter, a form of knowledge and praxis that was distinct from other forms of everyday praxis.

In the pre-modern way of life, pedagogical activity – concrete educational and teaching acts – have therefore always been directly integrated into human life and practical problems of a community. In other words, the learning processes have been inseparably attached to the contexts of the life-world, in which learning and the processes of growth are realized. The fact that the learning processes take place in everyday contexts and forms of living together does not, however, mean that the learning and growth processes are not directed in a more or less conscious manner. Education and teaching in their various forms are part of the everyday life of any human community. This is because the knowledge and skills required by social interaction are historical in nature. They have arisen as a result of man's own activity, and they exist as a tradition. This means that their transmission from one generation to the next is not based solely on biological growth and maturation, as they are passed on in human action, in which the members of the next generation are required, in a more or less conscious fashion, to realize their own learning potential in ways that enable them to participate in human society. (Benner, 2012, p. 24). In this sense the transition from the pre-modern to the modern world and its conception of education and teaching is more like a gradational change rather than a steep turn.

It was essential for the development of the school institution that with modernization the unity between learning and direct social interaction characterized above began to weaken gradually (Benner, 2012, pp. 16–19). The transition from the pre-modern to the modern way of life created a need for more goal-oriented learning processes as the means of traditional pre-modern communities for ensuring the future of the next generation were felt to be insufficient. Entry into modern bourgeois society, required learning processes that could no longer be fulfilled in a typically pre-modern way. Learning processes that were meaningful and necessary in traditional communities did not any longer meet the qualification needs of modern society.

However, the emergence of modern society cannot be seen simply as a structural change in society calling for a change in ways of thinking of learning processes.

The emergence of the ‘modern subject’ was a necessary part of the process of modernization and reform in society. To the modern human, the future appeared open, thus offering in principle an opportunity for social change that could surpass the limits of prevailing society and traditional forms of community. The modern man also wanted to know more. This required the development of new forms of teaching and learning, which also meant new conceptions of knowledge. Knowledge is not immutable, but something created. What is more, modern society presumed skills that could not be learnt in the immediate, close community or in the contexts of everyday life. It was a functional necessity that the learning and teaching processes assumed a sphere of their own. When modern societies were evolving, this ‘pedagogical sphere’ gradually acquired established forms of institutional and organized action. While institutional education became an essential part of the structure of modern societies, the identity of modern man was more and more characterized by goal-oriented educational aspirations and aims for which traditional life forms could offer no sufficient guarantee.

In other words: In the modern sense, pedagogical praxis is no longer integrated into the other forms of human praxis, but is a relatively autonomous sphere among others in society. This separation of educational praxis is not possible without institutionalization. Although pedagogical praxis is vital and constitutive for every human community, it was only in the course of modernization that it began recognizably to take its form of institutionalized and organized action. The relationship between the younger generation and the social life-form is mediated by the specific forms of organized interactions, which differ from the other social activities. Actions in the educational sphere no longer belonged or, more precisely, do not belong yet to the spheres of work and economic production, political decision making and coordination of society, sacral rituals, moral publicity or esthetic experience. Educational institutions are specialized and bring their own function into the context of society. They do not take directly part in the planning of the future actions of society as do political institutions; they do not secure the material and economic basis of society and self-preservation of human species, as work and labor do; they are not directed towards the intersubjective giving of and asking for reasons for moral actions in the real medium of communicative public use of reason in order to form public opinion.

However, this does not imply that educational institutions do not link to the other institutionalized forms of human praxis. On the contrary, they are specialized to produce those processes of learning and individual abilities vital for our productive participation in other institutional realms. The institutionalized forms of pedagogical action create a sheltered area, where the members of the new generation may develop their abilities without yet being fully responsible for participating in the activities vital for the preservation and continuation of the socio-cultural life-forms shared by the adult generation.

Because of its existential role and specific social function, the pedagogical sphere has its own rationality, shaped in the specific forms of interaction and differing from

other forms of social action. Typically, the notion of teaching refers to such a form of interaction at the core of educational institutions. Teaching can, of course, take place in any situation where someone is in need of guidance or help; nevertheless, teaching in the pedagogical institutions differs from this occasional help. It is done continuously in organized settings. Teaching is the main activity of the pedagogical institutions, which are occupied by agents who have the professional knowledge, skills, qualification and status recognized by the institution to conduct the activity called "teaching".

School is not just a context for "spontaneously running learning processes" (Fend, 2008, 180) or the immediate learning in the social intercourse and direct dealings with diverse aspects of everyday life. Learning is intentionally supported, guided, aimed and initiated by the diverse educational operations. Furthermore, what is at stake in schools is not merely to produce specific skills needed to solve problems that occur in the everyday lives of the pupils. Schools are able to produce educated individuals in the very broad meaning of the word, individuals who are able to continue their learning processes outside of school and participate in the various activities in society. The actual task of school is to expand the prevailing horizon and everyday experience of the pupils. This is possible only when institutionalized schooling is detached from the actually here and now lived context of the younger generation.

The emergence of the modern school system thus implied the basic insight that systematically organized teaching and learning processes enable the formation of skills and competences otherwise unobtainable within the framework of immediate everyday experience and intercourse between people. From the viewpoint of individual learning goals, in pre-modern society the routines of everyday life and prevailing social practices could be learnt without any special pedagogical intervention, but the modern world required something more. In other words, the task of the school as an institution was to create a 'pedagogical space' where human growth, development and learning processes could be subject to special pedagogical arrangements and attention. In a certain sense, the modern way of life called for teaching and learning processes that can be characterized as 'artificial' – or as Benner (2012, p. 19) pedagogically organized teaching is about "artificial interaction", in which professionally acting pedagogues support and help the growing people in ways that would not be immediately possible in the rest of everyday life.

How, then, can the position and task of school be characterized, and what makes it a legitimate social institution? Briefly, two central aspects may be highlighted from the preceding discussion. First, with the development of modernization came the formulation and determination of the status and functions of school in relation to the needs of changing society. It became the task of the school to ensure that the representatives of the new generation adopt cognitive and practical skills to enable their operation as members of a bourgeois, industrializing society. Secondly, the pedagogical task of the school in modern society is to provide and optimize real opportunities for the fulfillment of individual educational processes, learning

potentials and ideals. The learning contexts of everyday life are insufficient and too sporadic in modern society, in terms not only of the cognitive needs or qualification requirements in a changing society, but also in terms of the individual needs and goals for education. From the latter perspective, the task and goals determined for the school as an institution emerge from the 'internal rationality' of pedagogical practice rather than from any obligation to enforce external societal needs. Citing Johan Friedrich Herbart, the school is the institutional form of 'educative teaching' (erziehender Unterricht), with the task of expanding and deepening the pupils' existing reserve of experiences by introducing into it, in a systematic and pedagogically meaningful way, cognitive and practical elements that are not possible in the changing contexts of everyday life. This means that the formulation of goals for the school – and its legitimate justification as an institution – cannot be directly derived from the immediate needs of society (such as qualification requirements in working life), but also not from individual learning objectives and educational needs. It is about reconciling and optimizing the mutual relationship between the two. Defined on a highly general level, the school's task as a pedagogical institution in the modern sense is built on this very basis.

With the move to late modern or post-modern society, the institutional structures and patterns of thought of modern society have been questioned in many ways. The critical voices of post-modernity have also targeted the foundations of the paradigm of institutional education. While the status and tasks of the school and other pedagogical institutions have become subject to increasingly varied and conflicting criticism, there is continuous lively discussion on the importance of education and development challenges of school systems. It proves how important an institution school is.

OVERVIEW OF THE CONTENT OF THE BOOK

This volume investigates school from several points of view, divided into five parts: (1) Functions of the school: theoretical issues, (2) School, learning and teaching, (3) School, economics and labor markets, (4) School and school reform – national perspectives, (5) School, utopias and the future. In the beginning of every part there is a short introduction to the theme and the story of the section. Here we next give a condensed introduction to the chapters of the book.

Functions of the School: Theoretical Issues

In this section the philosophical and theoretical assumptions and foundations of a school as pedagogical and social institution are examined. The articles continue the discussion of the introductory chapter about a role, and function of modern school: what does the concept of school in a modern sense mean? What is the relation of a school to a state? How should one understand a school as a place of individual process of *Bildung*, growth and learning? Using a theoretical-philosophical approach, the

articles investigate educational ideas of a few well-known theorists of education and philosophy.

David Hansen's and Jessica Davis's *Socrates Goes to School* articulate a vision of the school as a center of 'a philosophical pedagogy', drawing on Plato's ideas from the Republic concerning self-cultivation and self-formation in conjunction with developing a civic or public consciousness. They incorporate ways in which John Dewey reconstructed Plato's ideas in service of what he called "the creative task" of justice and democracy. They discuss how a philosophical orientation can inform the entire formal and informal curriculum of the school, such that students learn the necessary skills for functioning in society even while developing a critical lens on the meaning of those skills, the nature of their society, and their personal destinies as human beings. The author's message challenges the values characteristic of present educational policy, i.e. the values calling for top-down accountability, the instrumental evaluation and external audition of schools. The authors remind us – as do Plato and Dewey – that we do not need to "audit" our merit as participants in humanity. Schools are not places where teachers and students have to earn a place in the social balance. Instead, school can be a place for philosophizing deeply and argumentatively about the important things in life.

Teemu Hanhela's article *Axel Honneth on Role, Form and Results of Public Education Revisited* is a theoretical analysis offering clarifications on Honneth's understanding of public education. Hanhela shows how Honneth's conception can be organised in concert with his recognition theory and a practical view of how a democratically-oriented education should be organised in schools.

The article introduces three pedagogical theorems: *the role of public education*, *the form of public education* and *the results of public education*. In the first category, the role of public education, the paper proposes that education is an inherent part of everyone's civil rights and the crucial instrument for maintaining a democratic society. The second theorem – the form of public education – is examined in order to improve our understanding of how democratic education should be organised, if Honneth's referred philosophical tradition of Kant, Durkheim and Dewey is to be taken seriously. The third theorem – the results of public education – reveals Honneth's distinctive position. According to the author, for Honneth it is not enough that in democracy the discourse principles become an inherent part of our identity, but instead that the development of an intact identity equipped with *self-confidence*, *self-respect* and *self-esteem* should be secured and prioritized. Public education should secure and cultivate this identity development in an equal manner to all, as its main task.

In his article *What are Universities for? From the Community of the Selves to the Transformative Potential of Higher Education* Jani Kukkola attempts to show what the university essentially is, if any such character can be ascribed to it. Kukkola makes a case for the transformative potential of university education, considering it a phenomenon that can capture something of the uniqueness of the institution relative to other forms of education, without making claims to have captured its

soul. Alongside the development and expansion of universities from their medieval origins has been a quest for the 'idea' or the 'meaning' of the university itself. This idea may not necessarily require a fixed essence *per se*, as Kukkola will later claim, but rather a dynamic discursive transformation potential as a *community of selves*.

School, Learning and Teaching

The pedagogic core task of the modern school has been traditionally described, among others, with concepts teaching, learning, education. With modernization came the demands of pedagogical professionalism and the related idea that carrying out the pedagogic tasks of the school requires specific vocational competence, i.e. teacher profession. In this section school education is examined from the point of view of the traditional pedagogical tasks of school on the one hand, and in light of the present educational research on the other. Especially two distinctive features of the present discussion make themselves felt: first, the pedagogical concepts such as 'upbringing', 'education' (*Erziehung*), 'Bildung', 'teaching', 'growth' have almost disappeared from discourse of school reformers and educational researchers; these concepts have been replaced by the concept of "learning"; secondly, the pedagogization or educationalization of culture and of society has called for a reassessment of the teaching profession and of the pedagogical tasks of school. The central questions are, therefore: 'How should one understand the pedagogical nature of school and with what kinds of conceptual categories should one describe it'; 'Have concepts like *Bildung* and 'human growth' any place in present educational language?'; 'How should one understand the professional role of teacher?' The following articles focuses on these questions and some others.

In his article *Schools and the New Language of Learning: A Critical Perspective* Jouni Peltonen analyses the striking change in the manners of speaking that has occurred during the past 25 years within educational research, resulting in "the new language of learning". This change follows the decline of traditional pedagogical concepts such as *education* and *teaching* or *Bildung* and *Erziehung* and goes hand in hand with the rise of the concept of *learning* as the most dominant conceptual category within educational discourse. Consequently, the claim is that the new, especially the constructivist- or sociocultural theories of learning, can alone orientate the process of education and the function of the educational institutions. While admitting that these new theories of learning have had a certain positive impact on some educational practices, their explanatory and normative potential is questioned in the article in two respects. As Peltonen demonstrates, the new theories of learning do not manage to constitute a sufficient basis for understanding, or for criticizing and improving either the processes of education taking place in the educational institutions or, analogously, for explaining, understanding and reforming educational institutions in modern or late-modern societies. In contrast to the "hegemony of the new theories of learning", Peltonen argues that in order to capture the complexity of the educational processes and the complex nature of educational institutions a

synthesis of the theories and lines of thinking provided by different branches of educational research and educational theory is required.

In the article *The Paradox of Being a Teacher: Institutionalized Relevance and Organized Mistrust* Daniel Tröhler describes the paradoxical nature of the teaching profession which arises out of the mismatch between the excessive expectations imposed on teachers and, at the same time, the constant mistrust shown to them for fulfilling these expectations. The paradox is related to the cultural shift of the educationalization of the Western world – that not only are a wide variety of social, economic and moral problems defined as educational problems but, in addition, education itself is placed at the core of the historical process and expected to fulfil future ideals. According to Tröhler, educationalization was reinforced by the tradition of modern educational thinking and especially by certain inherent fundamental religious motives. The author defends this thesis with the help of two, at first sight very divergent, figures in the history of education: Johan Heinrich Pestalozzi and Burrhus F. Skinner. Common to these thinkers is, according to Tröhler, their argument which is constitutive of the cultural shift of educationalization but, also, their shared view that in order to save the younger generation from the corrupting forces of external society, certain ideal conditions for making the natural development of the children possible are needed. Tröhler underlines the religious motives behind this idea. The task of education is to take care of the salvation of the younger generation, to protect the "God's creation" against the world of artificial moral corruption. The educator's task is, then, to be God's deputy, substitute and imitator, to secure the existence of this moral order. This religious background helps us, according to Tröhler, to understand those enormous expectations that schools and teachers meet even in secular contemporary societies. This raises the question: should one reject expectations, which no one can fulfil.

Eetu Pikkarainen analyses in his article *School Learning as Human Growth: Modal Dynamics of Learning* the function of school as a place for human growth. By human growth – or Bildung – he means the learning which is required by a member of a future society. According to Pikkarainen, school must be a bridge between current society and an unknown future society. Because we cannot be certain what competencies are required for the future, this approach suggests that we focus on the qualitative features of learning. Pikkarainen elaborates the nature of learning with the help of the semiotic conception of modal competence, which can be approached by the modal sub-verbs *want*, *can*, *know* and *must*. Learning is separated into three different levels: the lowest is pragmatic; the next is social; and the last and highest in terms of human growth is existential learning. The task of school, at all levels, is to foster or at least try to achieve the existential level of learning.

School, Economics and Labor Markets

In this section, education is analyzed from the point of view of the economics of education. Starting from the seminal works of Theodor Schultz and the "human

capital revolution in economics" in the late 1950s and early 1960s, the economics of education has gained an established and influential status among other sub-disciplines of educational research. As articles in this section prove, the economics of education has not only deepened our understanding of how education is related to the labor markets but has also gone far beyond Schultz's original labor market focus by establishing a rich framework to study the production of education. Also, when analyzing the role of education in comparison to the human capital theory, as well as the microeconomics of education, the economics of education has, in many respects, overcome many of the reductionist, one-dimensional cause and effect views of the neo-classical human capital orthodoxy. The concepts in the economics of education currently focus on the complex, multi-causal relations between education and labor market. They recognize the challenges involved with modeling the production of education by considering the peculiar nature of emerging educational processes.

In their article *The State, Markets and Education* Kimmo Kontio and Maximilian Sailer argue that the development of public educational institutions as well as the economic rationale of the public funding of education can be explained in association with their functional necessity for securing and promoting economic welfare but also in their recognition of the potential alienating tendencies arising from the demands of the economy. Thus, traditionally the idea of modern public education is related to the kind of a "double function" where, in addition to the market mechanism, the function of educational institutions is also determined by political decision making regarding the amount of public spending on education and the goals public education is meant to achieve. Kontio and Sailer claim that, based on the findings of economics of education, several arguments can be found that together give a strong economic rationale for the public funding of education. On the other hand, the recent trends of the privatization of public education challenge the traditional role of the state when it comes to the funding of education and, more emphatically, for the provision of public education. This theme is selectively studied by introducing the market and public choice based argument on the provision of public education made influential by Milton Friedman. Whether the claims for the privatization of education marks a true change in traditionally-defined governmental responsibilities in education remains to be seen and naturally the economic justification of these claims is dependent on how adequately the overall benefits of education are estimated. The well-known methodological challenge is, of course, that many of the benefits are not easily expressed in pecuniary terms.

The rationale for the public funding of education is also addressed by Henry M. Levin in his article *The Economic Payoff to Investing in Educational Justice*. The vital preoccupation of Levin's 40-year academic career has been to study whether seeking educational justice by greater educational investments in at-risk populations provides an economic payoff for the public that exceeds the costs. In contrast to the popular conclusions drawn already from the monumental *Coleman Report* (1966) and more recently quite often heard skepticism on whether improved public educational funding can promote educational equity, Levin argues that the

moral imperative for investment in educational equity can be supported by the strong economic evidence and, thus, an investment for educational equity is also a good public investment policy with high monetary returns. Although Levin's focus is on American society, his research can be considered as an example of the methodologically sophisticated attempts recently made to study the overall returns of educational investments. It thus has significant importance in general (see also Belfield & Levin, 2007.) Moreover, Levin's analysis of the costs and effects of the various educational interventions is noteworthy (see also Levin & McEwan, 2001). Namely, it is far from evident that educationalists and school reformers are always well aware of the importance of the cost analysis (when properly used and understood) when evaluating the desirability of the educational investments. For example, there might be a tendency, especially in dire economic times, to emphasize the cost side and ignore the effect side of the investments and this might have serious drawbacks. This is because, naturally, the desirability of the various educational interventions must be compared not only in relation to their costs but in relation to their cost-effectiveness ratios.

In his article "*Productivity, Effectiveness, Efficiency: Basic Concepts of the Economics of Education*" Dieter Timmermann gives a systematic analysis of the eminent economic concepts of productivity, effectiveness and efficiency. When reflecting on the function of school and the educational system in terms of these concepts, many important issues come to the fore. For example, the concept of productivity can be constructed differently depending on how are the measures of schooling outputs and inputs identified. From this follows the idea that instead of a single productivity measure, a number of schooling productivities can be identified. Consequently, because there is no obvious reason to choose one productivity over other, educational productivity is a construction that is dependent on the observer's view about education and his or her interest in creating a certain kind of a agenda for education. When the focus is turned to the concept of efficiency, the normative orientation is added to the picture i.e. that the relation between output and its costs must be optimized so that the recourses are not wasted. The concept of effectiveness differs from the concepts of productivity and efficiency in the respect that it does not measure input-output-ratios but instead output relations. So, this concept expresses rather the pedagogical than an economic point of view of schooling. Also, when the nature of the production of education is reflected, the indetermination of the production must be taken seriously. This means, that instead of assuming a linear process of transformation of the contents taught into context of learned, the educational production involves significant contingencies and uncertainty resulting from endogenous factors. For example, the competencies a pupil will have at the end of a learning process is dependent on the fact that a pupil is an autonomous co-producer of these competencies. So, in the end, raising the productivity, effectiveness and efficiency of the schooling might be crucially dependent on the fact how this indetermination of the educational production is taken into consideration.

School and School Reform – National Perspectives

In this section the contemporary discourses concerning school and school reforms are revealed with the help of a few national case studies. In these articles, the national and local interests and premises are related to the supranational and global educational policy trends. So, although the articles discuss educational policy and school reforms from national perspectives they describe also how supranational ideologies and global school reform waves, in many cases, challenge national and local educational interests and cause ideological tensions in national educational policy-making. In spite of the national and contextual differences, many authors of this section agree on the critical assessment of educational agendas of supranational organizations. From the national perspective, school doctrine of supranational organizations and global education policy trends appear as an ahistorical policy agenda and reform demands, in which cultural-historical connections of education have been ignored.

Pauli Siljander's article *School in Transition: The Case of Finland* examines, from a Finnish national perspective, the changes that have occurred in the Finnish educational system and educational mindset especially, over the past fifty years, taking into consideration the longer peculiar national history of Finland between two cultural, political and societal systems; on the border between the East and West. Siljander proves how the alterations in general educational policy views and pedagogical principles are interrelated and have defined Finnish school reforms from the 1960s to the present. According to Siljander, Finnish school reforms in their many focal transitions have been guided by the principle that Finnish national philosopher J.V. Snellman defined in the 19th century as a national lifeline: a small nation's strength is its *Bildung* and the *Bildung's* strength is its generality instead of its particularity or elitism. The principle, thus, includes a strong demand for educational equality. It can be shown convincingly that changes in general educational policy and changes of pedagogical principles have gone 'hand in hand'. Although Finnish school reforms have been traditionally guided by the emphatic vision of *Bildung*, the recent debates on educational policy and pedagogical reform have made visible the tensions arising from the supranational organization's educational policy agendas and their implications to the national school system and its reforms.

In their articles, Wolfgang Schönig and Andreas Fuchs analyze the heated public debate concerning the meaningfulness of the recent school reforms in Germany. According to Schönig's *The Transformation of School in a Changing Society – A German Example* the German school system, when responding to the prevailing societal challenges has adopted the school reform's ideological guidelines from the neo-liberal political agenda; this in turn has led to the massive and resource-demanding restructuring of the German school system. The restructuring is fundamental in nature. When the chosen strategy is *management by objectives*, it has led to the establishment of the skill-based national education performance standards with the need for a rewriting of the curriculum, a redefining of teaching practices

and the creation of "the evaluation machinery" to satisfy the constant need for the measuring and top-down assessment of education. However, according to Schönig's analysis, the evidence that these neo-liberally motivated reforms are bettering school practices and their outcomes is absent. When analyzing these reforms from the point of view of educational science and in the light of empirical studies, Schönig reveals the vacuity and shortcomings of these reforms. For example, the concept of skill is itself an unclear and vague term, lacking substance or content, tending to narrow the outcomes of education as a purely pragmatic adaptability and, moreover, from the skill-based curriculum, follows the de-politication of the curriculum and de-professionalization of teacher profession and teaching practice. The fundamental failure of these school reforms is that they are based on a logic that corresponds neither to the educational intuition nor to the expertise of teachers and professional pedagogues. What is needed, as Schönig emphasizes, is educational theoretical reflection about school and the educational processes taking place in schools on which the school reforms must be ultimately anchored.

John Andreas Fuchs' *It Takes a Village" – (Catholic) Education in the 21st Century* analyses the aftermath of the first PISA results (2000) on German educational policy. The results sent a shockwave throughout Germany and led immediately to the paradigm shift in educational policy where traditional educational values, objectives and ideals were replaced by educational standards, measurable test scores and competencies. Fuchs introduces a diagnosis, very much in the same spirit as Schönig, of the state of German public education which, as it defined education as a measurable, standardized and valuable resource, has lost education itself. One may ask, then, if German public education is facing a kind of "legitimation crisis". In other words, when reflecting on the question of the provision of education in Germany, Fuchs points out interestingly that the recent trends in educational policy and school reforms do not necessarily correspond to parental preferences concerning education. It seems evident that what parents expect of public education is that it treats their children like human beings, respects their individual needs, hopes and dreams and does not regard them as sterile standardized human resources. According to Fuchs, the mismatch between parental wishes and the guidelines that public education has adopted in the aftermath of PISA explains the popularity of the private, especially Christian, schools in Germany. To show what is done differently in private schools, Fuchs analyses the pedagogical idea and practices of Catholic schools. Fuchs concludes that because Catholic schools have to a certain extent managed to elude state control, they have also been able to maintain very traditional and fundamental values in and motives for education (*Bildung*).

In the article *Schooling Vis-À-Vis Learning: The Case for Reducing Compulsion* Andrew Stables questions the dominant contemporary trend in educational policy where a long compulsory and formal schooling is individually and socially desirable. According to Stables, the mantra that the more one pursues formal education, the better one can do, has lost its power. Rather, this ideology leads to the problem of "over-compulsion" that endangers the actualization of the student's own preferences

and ambitions and the critical evaluation of the personal educational paths. Although school is a functionally necessary social institution, an overly standardized formal school reduces the possibilities and potential effects of education and schooling. Stables introduces a scenario of a proposed school reform in England where the compulsory school age is reduced to 14 years and the current secondary school is abolished. However, the main point in the article is not to argue against school or schooling or defend de-schooling but, rather, to seek alternative ways of organizing formal schooling.

In the article *School Representation in Curriculum Policies* Alice Casimiro Lopes and Elizabeth Macedo analyse the political discourses surrounding school and the school curriculum in Brazil. In particular, they seek the meanings that are given to school as a social institution. Their methodological approach relies on post-structural discourse theory from Derrida to Laclau and Mouffe. According to this view, these discourses at different levels of society are seen as political hegemonization trials which have little by way of objective foundations. The important point is that if these discourses and texts have any effect they must be read and interpreted by people and this opens up the creation of new and different views. They find in their data four convergences which they name as (1) school as social redemption; (2) the school we have; (3) the [desired] school; and (4) the school as a place of authentic experience of teachers.

School, Utopias and Future

The articles on the last section open far reaching perspectives to the both past and future. While most of the earlier articles concentrate on many concurrent problems and reformation visions of schools, the main point of these two articles is to delve further into the future and history, if not to the timeless questions of schooling. While the first article sets forth a bewildering and intriguing Utopia of future school and society, the second argues that whatever changes may occur in society, school will perhaps remain surprisingly similar. In spite of their apparently opposing perspectives these articles, after all, point to the same core question of this whole book: school and school learning.

Alexander Sidorkin's article *The Emancipation of Children* constructs an argument that may to some degree seem quite similar to the radical school critics, like Ivan Illich's *deschooling*, especially because of its explicit Utopian finale. Yet there is a remarkable difference and originality in Sidorkin's thesis in relation to classical educational criticism. Namely, Sidorkin builds his arguments on economic analysis and conceptions. While economic theories have typically argued about whether education is either a form of consumption or investment, or both, Sidorkin's claim is that first and foremost education and school learning is neither: it is *work* and it is the work of children. Thus his criticism against schooling is not against any boring, difficult or artificial characteristic of school work but against the case that it is the last form of forced labour or even human servitude in civilized society. Thus schools

need not be "deschooled" but school work should be – just like any other work – paid justly and at least partly voluntary. Sidorkin's utopian model may not perhaps change the school so much as cause a number of revolutionary transformations to the social structure and especially to the rights of the youth.

Norm Friesen's article *The History of Education as the History of Writing: A Look from the Past to the Future* adopts an historical point of view with an exceptionally long time perspective. His point of departure is the Sumerian culture from about 2500–2000 BCE, whereas educational and school histories typically start from antiquity or from the eve of modern times. Friesen starts his consideration from the modern critique that instead of being boring, difficult, artificial and individual as in school, learning – especially the learning of children – should be fun, natural, authentic and social. According to Friesen's view, this criticism is not a new phenomenon: famous critics like Rousseau, Dewey, Illich etc. have already broached the idea. Schooling seems to be very stable institution whose roots are as long as the history of writing. Happily, the Sumerians used clay as durable writing tablets and thus this period is exceptionally well documented. We can therefore reconstruct the educational characteristics of that culture and find astonishing similarities between it and later school practices. From that evidence, Friesen can construct an argument that – boring, repetitive and artificial – schooling will be also in the future an essential and necessary part of any human culture which relies on writing and textual knowledge.

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SECTION I

FUNCTIONS OF THE SCHOOL

Theoretical Issues

The previous historical introduction describes the rise of school to its position as a central social institution in modern society. The core reason for this development is most apparent in the general modernization process where the life worlds of citizens became so diversified and complex that the pre-modern ways of socializing the younger generation into the society of the older generation was no longer possible. This explanation opens up a fairly conventional view of the functions of schooling according to which school simply transfers the knowledge and skills needed in different areas of society to the younger generation. Thus schooling is perceived as a general sub-contractor, producing workers and other useful members for the different social areas and institutions like work places, politics, churches etc. But this is clearly not the whole story nor the only story. School is not merely subordinate to other social structures and institutions even though economic factors dominate in current discussions and trends. School has, or can have, other commitments too. School can serve the needs of the individual student by offering, for example, possibilities for Bildung and personal growth or social advancement. Secondly, school may assume a critical relationship to the surrounding society by producing a better, or at least a different kind of, citizen than any member of the older generation. Thirdly school can have functions and an essence of its own which are not subordinate to other institutions and to the needs of the student. Nevertheless, members of the school institution can take an active part in defining and re-defining these functions and features of schooling.

This section approaches the functions of school and schooling from this critical and independent point of view. A proper starting point for examining the functions of and reasons for any institution or activity is, undeniably, philosophy. The first article, by Hansen and Davis, returns to the first, broad and systematic philosophical study of the philosophy of education, which is the *Republic* of Plato. The core function of school, conclude both writers, is to provide a place for philosophizing, a site for asking the deepest grounds and reasons about the most important things in life. This leads to a new fundamental problem: the right of every person to take part in this activity i.e. the problem of democracy. In the article by Hanhela this topic is analyzed via Klaus Honneth's views. Surprisingly –but consistently with Hansen and Davis' starting point – it appears that democracy requires the development of a strong and healthy identity in each member of society. In the last article in this section, Kukkola focuses on the democratic development of the school institution itself. In higher

education in particular, the expectation that the institution transforms its members is still present, but it is now accompanied with the expectation that members, in turn, transform the institution. Thus university, in the role of school, should not be seen as a predefined essence but a community of academic selves discussing the functions of that institution. In brief, it can be stated that independently of their varying theoretical starting points all the authors agree that the basic aim of school and schooling is to humanize society. By supporting the students' realization of their potentialities for growth and Bildung, institutional education attempts to foster those conditions which lead to a more humane and democratic society and, ultimately, a better world.

DAVID T. HANSEN AND JESSICA DAVIS

2. A PHILOSOPHICAL SCHOOL FOR OUR TIME

Thinking with Plato after Dewey

Why indeed *do* we have schools? This perennial question has taken on new urgency in our era. As has been widely shown in the scholarly literature, governments the world over have been using educational policy to render schools ever more tightly into instruments of economic, nationalistic, and often xenophobic competitiveness. These policies shunt aside long-standing educational aims such as the cultivation of engaged citizens, of human beings infused with aesthetic and artistic sensibility, of persons dedicated to an ethical life in close association with others, of people who treat their lives as vocations, and more. In the place of such values, we bear witness today to top-down accountability measures that do not invite educators to give an *account* of their work, but which instead *audit* their doings through a narrow range of quantitative measures whose epistemic worth has been seriously challenged, including by statisticians themselves (Nichols & Berliner, 2007; McNeil, 2000; Popham, 2001; Porter, 1996; Ravitch, 2010; Sockett, 2012). Policy-making today appears to exclude testimony and wisdom from the very people who actually perform educational work rather than talk about it. The policy-making community sometimes seems to engage in nothing but talk, and it is often monological. It is not guided by serious listening to educators who understand that education is a profoundly value-laden endeavor.

These circumstances render the title of our chapter, at first glance, rather fantastic – literally, driven by fantasy. A "philosophical" school: how could philosophy have any place in schools today? Plato and Dewey: how can their educational perspectives possibly find a place in a policy zeitgeist dominated by a narrow strand of quantitative methodology? Dewey (1985b) poses these questions in his own distinctive, hard-hitting manner. "Is it possible," he asks, "for an educational system to be conducted by a national state and yet the full social ends of the educative process not be restricted, constrained, and corrupted?" (p. 104). By "full social ends," we take Dewey to mean that education *can* cultivate the values touched on above: civic engagement viewed through a cosmopolitan rather than nationalistic lens, ethical and aesthetic involvement in all the facets of one's life, and building and supporting lives of purpose and meaning for all people. Dewey was concerned that nation states too often construct educational policies that "restrict, constrain, and corrupt" these deeply humane values.

P. Siljander et al. (Eds.), Schools in Transition, 19–33.

Plato had comparable concerns about the relationship between the polis and education. A reading of his dialogues suggests, to us, that he conceived education as something distinct from socialization and tradition. He does pay custom and convention their due. He is not a revolutionary, any more than is Dewey. Plato understands that a stable community will necessarily rely on shared values and assumptions informed by past practices – what Dewey (1985b, pp. 7–35) later terms "like-mindedness" (not to be confused with 'identical-mindedness'). But the past does not *determine* the present or future. Plato makes plain (*Republic* 518c–d) that true education entails a "turning of the soul" away from merely traditional forms of life and toward a mode that includes elements of tradition aligned with critical reflection, inquiry, dialogue, and above all wonder. We mean wonder at the fact we humans are here in the first place; wonder that we are actually capable of conceiving justice and of enacting it (with justice understood as morality rather than as mores); wonder that we actually have a sense of beauty and of goodness; and what might be called critical wonder at how "restricted, constrained, and corrupted" – to recall Dewey's words – a state's educational policy can become. In *The Apology* and elsewhere in his oeuvre, Plato shows Socrates relentlessly criticizing the Athenians for not being serious about education. He charges them with caring only for their own narrow, short-term interests of power, prestige, and profit. In a wrenching, unforgettable manner, Plato demonstrates the power of such interests by dramatizing how they led to Socrates' execution at the hands of the state.

Plato and Dewey were keenly aware of how difficult or even impossible it can seem to bring philosophy into education – as well as education into philosophy, since both writers were also concerned about philosophy's tendency to leave practical, formative human matters behind. Both Plato and Dewey, each in his own way, ventured a philosophical school. Plato created the Academy just outside the walls of Athens, and Dewey conceived the Laboratory School on the south side of Chicago. Both institutions were places where philosophy and action met at a dynamic crossroads of dialogue, testing of ideas, and drawing in evidence from the world. Both were places for high theory, though not directly or systematically so in the Laboratory School. There the process was more indirect, in that what unfolded on a day by day basis triggered numerous philosophical lines of inquiry, especially on the part of Dewey but not restricted to him (Tanner, 1997). Both were places where thought and action had a bearing on the world outside the institution. Many visitors to Plato's Academy came to discuss ways of instantiating political principles in actual constitution-making back in their city-states (Reeve, 1992, p. xiii). The Laboratory School's overt policy was to engage teachers and students in perceiving connections between their activities, and the outcomes of such activities, with the larger world of which they were all a part.

We take inspiration from the powerful sense of realism both Plato and Dewey embodied. We also take heart from their equally powerful sense of idealism. They show why it is never fantastical to address the idea and the prospect of a philosophical

school. The task is ever-important and ever-timely. In what follows, we sketch a conception of such a school. We will draw particularly upon several of Plato's ideas as elaborated in his *Republic*. We do so in light of our sense of Dewey's educational arguments as expressed in particular in his *Democracy and Education* (a book whose 100th year anniversary is in 2016). Thus we read Plato as if he came "after" Dewey. Our view of a philosophical school will not be a prescriptive blueprint but, to use a term of art from Plato, a model we hope will be worthy of examination.

WHY PLATO IS A CONTEMPORARY WHO SPEAKS TO THE MEANING OF SCHOOL

Jean-Luc Nancy (1996) writes: "A contemporary is not always someone who lives at the same time, nor someone who speaks of overtly 'current' questions. But it is someone in whom we recognize a voice or gesture which reaches us from a hitherto unknown but immediately familiar place, something which we discover we have been waiting for, or rather which has been waiting for us, something which was there, imminent" (pp. 107–108). In this chapter, we read Plato as a contemporary in the many-sided sense that Nancy evokes. For us, Plato *writes*; it is not merely the case that he *wrote*.

We appreciate the challenges in adopting this posture. For one thing, we cannot help but read the book through the lens of our own concerns, which unavoidably shape what we are in a position to see in the text. We acknowledge there is much we doubtless do not see, and that we will not see until we undergo further intellectual, aesthetic, and ethical change as persons. Even then, there is no guarantee that our vision will be able to take in the full horizon of Plato's thought on education.

For another thing, it would be impossible to summarize the criticism scholars have heaped upon Plato's *Republic* since he first introduced it in his Academy sometime in the 370s BCE. (The exact dates of the book's composition are unknown.) Commentators have characterized the *Republic* as the fountainhead of all subsequent philosophy, as a totalitarian blueprint, as a beautiful evocation of the just life, as an elitist view of education and society that excludes women, children, non-aristocrats, and non-Greeks, as a moving portrait of Socrates and his educational effect on others, and as much more. In our own experience, the book constitutes an endlessly provocative invitation *to think education* (cf. Hansen, 2015): that is, to imagine as best as possible how education can enhance the human condition, by which we mean the well-being of individuals and communities alike. The book serves as a dramatic mirror to the constitution of one's own being, or soul. Serious readers of the book, who make their way through it with care and patience, will learn much about themselves. They will perceive much better than before what their underlying social and educational values are. They will have fresh insight into their hopes, concerns, and fears about the world. They will learn, not always in a comfortable manner, about their intellectual and ethical blind spots.

We adhere to no particular "camp" of interpretation with respect to Plato's view of education, justice, and society. We take to heart Gilbert Ryle's (1966) wise and witty perspective:

> Although philosophers are and ought to be highly critical persons, their wrangles are not the by-products of loyalty to a party or a school of thought. There do, of course, exist in our midst and inside our skins plenty of disciples, heresy-hunters and electioneers; only these are not philosophers but something else that goes by the same long-suffering name. Karl Marx was sapient enough to deny the impeachment that he was a Marxist. So too Plato was, in my view, a very unreliable Platonist. He was too much of a philosopher to think that anything that he had said was the last word. It was left to his disciples to identify his footmarks with his destination. (p. 14)

It is precisely Plato's openness to thought, to questioning, to inquiry, and to doubt, that we see as constitutive of a philosophically-minded school. The commitment to openness which we take to be characteristic of philosophy, and which Plato exemplifies, is grounded in assumptions about educative possibilities. For Plato, these educative possibilities are rooted in his position on truth and our relationship to it. For Plato, we humans do not possess 'the' truth about who or what we are as beings. He takes pains in the *Republic* to show that Socrates is often quite unsure of himself and of the arguments he is putting forward (394d, *passim*). However, as Socrates also shows us, we can move closer rather than farther away from truth – and it matters that we strive to do so, for the sake of both justice and its correlate, education.

Moreover, not only is inquiry and wonder the preferred pedagogical orientation that can be inferred from Plato's works, but poetry, music, and physical education – what we might call *the embodied arts* – are also indispensable for cultivating the fullness of each individual's activity as a participant in the just city (*kallipolis*) that Plato conceives in the book. By drawing on Plato's *Republic* with its rich metaphorical and allegorical language, we hope to foreground the art of inquiry and to keep Plato's thought alive – as our contemporary – in our conceptualization of a philosophical school.

In what follows, we elucidate our core terms by walking with Socrates out of the ancient Athenian agora and into the terrain of today's educational world. Like Dewey, we are concerned to portray a school that would serve public rather than merely private ends. We understand the term "public" as a communicative ethos that is generated through open, unfettered dialogue and inquiry with respect to a given set of concerns. We take unfettered dialogue and inquiry to involve listening with care to others, speaking with care to them, and remaining open-minded and open-hearted even in the face of contrasting views. Within this disciplined but unbounded dialogue and inquiry, people are able to step outside their private worlds and into a critical mode of talking, thinking, planning, and doing (Dewey, 1988). We are mindful of Dewey's (1991) argument that not only are education, justice, and

democracy creative, ever-unfinished tasks, but that the very structure of the self is similarly fluid. These views clash with the perception that Plato held a 'fixed' notion of self and society. However, we will explore how Plato's conception of education can not only be revitalized by the Deweyan notion of plasticity, which denotes the potential to *change*, but can be seen as offering an argument on its behalf. We wish to show that if we read Plato after Dewey, the former's apparent constraints take on a new coloring, and help us to invoke an image of a philosophically-minded, public school.

THE SCHOOL AS A PLACE OF AND FOR THOUGHT

The methods of inquiry demonstrated by Socrates in Plato's dialogues mirror what we can observe in the classrooms of many good teachers today. These teachers challenge students to think. They treat students as capable of dealing with confusion and uncertainty – within limits – because they grasp that what the Greeks called *aporia*, or what Anne Carson (1999) calls *the experience of error*, is constitutive of genuine learning as contrasted with the mere acquisition of facts. Mistakes, errors in understanding, faulty judgments, misguided actions: machines might be able to avoid such experiences, but human beings need them to become educated.

People sometimes assume that philosophy is useless in pursuit of this pedagogical approach – namely because it focuses (supposedly) on pure abstractions and on questions that are unanswerable, rather than addressing real-world problems. Indeed, Socrates is famous for his suggestion that all he knows is that he does not know. Could a school today be constructed on such an epistemological and ethical premise?

To speak in paradoxical terms, a good public school is certain about the values in dealing with uncertainty. Uncertainty and 'unknowing' are central conditions for inquiry. In their absence there is no motivation to look into things. Uncertainty is also at the heart of the human condition. We are not divine but are fallible and vulnerable beings. Philosophical skepticism implores us to respond to uncertainty rather than to react to it uncritically or flee from it unthinkingly. As such, uncertainty triggers some of the deepest creativity of which human beings are capable. We take these claims as illustrative of why the 'Socratic method' – itself embodied in the very structure of Plato's dialogical mode of writing – continues to animate classroom practices around the world wherein teachers and students engage in thoughtful, inquiry-centered discussion. The longevity of this approach mirrors the widespread educational aspiration, articulated in depth by Dewey, to teach the scientific method to young people so that they can engage in inquiry self-consciously while learning how to approach public claims in a reflective rather than an unmindful, dogmatic, or idolatrous spirit.

Plato's and Dewey's respective commitments to their ideas about inquiry run deep. They express a firm belief in the efficacy of rational, open-ended discourse. Both thinkers conceive 'rationality' as a holistic concept. It encompasses familiar notions of

reasoning, but also embodies aesthetic, ethical, and emotional components. In Plato's still provocative picture of the tripartite rational soul, reason does not dominate or exercise hegemony over spirit and appetitive desire. Rather it guides them, keeping them in harmony so that the soul constitutes a unity. Dewey also painted rationality in broad strokes, centering it around and in the arts of communication. He rooted the idea in much more than problem-solving – a recurring human task with which his thought is often associated – but also in human responsiveness to other people and to the events of life itself. Neither Dewey nor Plato put rational discourse in service solely to specific, a priori outcomes. Such a move would contradict the very integrity of inquiry. Both thinkers urge us to nurture rational dialogue and inquiry because they see in them a space for humans to thrive educationally as the social creatures they are.

In this light, a philosophically-minded school would draw teachers and students into dialogue and inquiry that have no fixed external end or purpose. This philosophical discourse would run through the curriculum (see below). It would accompany instructional moments when students are concentrating on learning to read various kinds of texts, to write good sentences and paragraphs, to numerate and solve mathematical problems, to manipulate a paint brush or potter's wheel, to hold a basketball in order to shoot accurately, and so forth. The philosophical dimensions of their activities would constantly trigger inquiry, wonder, and curiosity, even as they also help cultivate arts of listening, of speaking, and of working cooperatively with others.

A school that takes philosophy seriously is thus not designed to serve merely the economic ends of society. The school's administrators and teachers would not yield passively to externally imposed auditing mechanisms and the standards to which they are attached. They would certainly respect the rule of law, and would take such standards seriously. But they would put them in service of pedagogy rather than the other way around. They would embed curricular standards in a larger vision of educational purpose and practice, thereby transforming them from externally imposed fixed standards into internally shaped, dynamic standards. The latter would function as what Dewey calls "ends in view" (Dewey, 1985b, pp. 35–112, pp. 115–152). For Dewey, *all* educational ends, or aims, should be seen as steps along a path rather than as terminal destinations. In this light, all members of the school would have the ongoing opportunity to *participate* in the setting of educational standards to which they will adhere. Put another way, they will be positioned to offer an *account* of their learning (*Republic*, 498a, 531e, 533b–534d). Teachers and administrators will support students to learn to ask questions, to articulate their beliefs, and to put their judgments on the table for rational scrutiny. It is by participating in this living, breathing, and thinking practice that the purpose of a philosophical school is realized.

Plato's dialogical method constitutes a kind of purposeful openness, and reflects his conception of thinking. For Plato, thinking is not 'applied' to the world. It is undertaken *in* the world through dialogue with others, and through inquiry into the things that we sense and the things that surround us. Plato pictures study as, ultimately,

leading people to approach what he poetically terms "the Good." We take this term of art to denote, among other things, the conviction that we humans are capable of unfathomably artful lives – of aesthetically and ethically rich lives – if we picture ourselves as more than merely economic producers and consumers dwelling in an atomistic, individualistic world. The sense of the Good helps us in "summoning the understanding" (*Republic* 526e). Put another way, deep questions of purpose and of value "summon" or awaken thought and understanding. They oblige us to make clear distinctions as we examine the contours of our own thinking (*Republic* 524e–525d). Plato inaugurates a particular way of thinking – "dialectics" – which conduces, as he puts it, to the "ascent to problems" – i.e. to realizing that the social and natural world around us can be questioned rather than treated merely as a backdrop. When teachers and students pose questions about their very 'Being' – about who and what they are, and indeed *why* they are – and when they perceive contradictions and tensions in the human-made world they inhabit, they are "summoned" to problematize and thus to inquire into that world (*Republic* 530b, 531c, 534d, 538d). For Plato, dialectics ultimately can lead to seeing a unified (though not uniform) prospect of social harmony (*Republic* 537c), just as science for Dewey can lead to social amelioration.

A philosophically-minded school becomes a place *of* and *for* thought. It urges its members to contemplate and discuss the very questions which so often leave people feeling uncertain, perplexed, and unsettled. The school does not exist to proffer solutions to these questions, so many of which have no terminal answer. Rather, the questions become a spur to careful inquiry, considered judgment, and dedicated communication. Nobody is left isolated or abandoned in their questioning. Rather, the school becomes an agora where anyone's doubts, puzzlement, and fundamental curiosity can gain a hearing.

AN EDUCATION IN THE EMBODIED ARTS

We referred previously to Plato's extensive discussion of the educational values in poetry, music, and physical education in the forming of the *kallipolis*, or "just city" that he conceives in *The Republic*. Here, we discuss how Plato has in mind the education of *all* members of the city, not just those destined to become what he calls guardians or philosopher-kings and -queens. We recall here the isomorphism (Lear, 1992) that Plato conjures between the 'soul' of the just city and that of a just human being. He refers to three groups of people: (1) the largest number are those who carry out the work of the city in every relevant cultural, economic, and social domain; (2) the guardians are those who protect the city from external enemies (war was endemic in Ancient Greece when Plato penned his book); and (3) the small number of philosopher-kings and –queens would serve as guides (though not autocratic decision-makers) during debates over policy, as adjudicators of disputes, and as public enactors of revered cultural values. These groups correspond, respectively, to the three parts of the human soul: (1) the appetitive part, (2) the spirited part, and (3) the reasoning part. As mentioned previously, a rational soul – and a rational

city – feature a harmony of the parts in which each functions well on its respective platform without overriding the functions of the other parts.

While the *Republic* culminates in a lengthy inquiry into the proper education of the philosopher-kings and -queens, it also portrays what Plato takes to be the right sort of education for children and youth in a just polity. All youth in the kallipolis ought to hear not just any myths and any poetry, but only those that inculcate virtues such as moderation (*Republic* 389d–391c), grace, harmony, and rhythm (*Republic* 400c–e). To cultivate the kind of love of the Good, or love of Beauty, that Socrates was in search of, Plato 'paints a picture' of exactly how artistic forms such as painting, singing, and the like can indeed leave an imprint on a person's aesthetic and moral sense – for indeed, the aesthetic and what we call the moral fuse in his outlook. Education in music and poetry, Plato argues, is "most important" because the rhythm and harmony of its tempos leave a potentially lasting mark on the soul, "bringing it into grace" (*Republic* 401d). Moreover, Plato contends that this kind of 'metered' education eventually positions students to detect when things, across the affairs of life, are disharmonious – that is, either are missing (such as justice – see below) or are in excess (such as wealth or concentrated power). Because heavy exposure to music and poetry encourages people to see the unity in temporal space – every pause anticipating the next note or word – they can also come to see unity and holism in nature (*Republic* 401e–402a).

Plato suggests that a pedagogy that engages children systematically in the arts would put them on the road to becoming ethical persons who strive for harmony, who love beauty and the order in a soul that has been transformed through an aesthetic sensibility (*Republic* 403a). At the same time, taking another cue from Plato, a 'balanced' soul emerges through a fusion of the arts of poetry and music with those of physical education. Plato advocates systematic exercise for children so as to discipline or 'direct' the spirited part of their natures, even as they develop moderation with respect to foods and the uses of medicine (*Republic* 410b–412a).

As we interpret Plato, the grounding education in the embodied arts that he elucidates would be provided to everyone in the just city – not solely to the small roster of guardians and philosopher-kings and –queens, but to farmers, cobblers, homemakers, tailors, merchants, sailors, doctors, and all the rest. This shared grounding seems crucial to Plato because it appears the good city can only come into being and endure if everyone has a deep commitment to it, expressed in part through their dedication to what they are most suited to do. Here again he draws upon the isomorphism of city and individual soul. Just as the singular human soul will prosper if each constituent of the soul plays its distinctive role in harmony with others, so the soul of the city will be healthy if everyone in the three groups of citizens, guardians, and philosophers share the same rational commitment to justice. Justice (*dikaisune*), for Plato, fundamentally entails doing no harm to others. It encompasses the idea of moderation, by which he means a respect for one's own particular activity fused with respect for others' autonomy in their activities. He regards *pleonexia*, which can be translated as "outdoing others" or "wanting more" than what necessity dictates, as

the greatest threat to justice in both the city and the individual soul. This *pleonexia* points not just to what we familiarly call greed, but can include trying to take over, or destroy, other peoples' practices.

As touched on previously, an education in music, poetry, and physical education puts the constituents of an individual soul in harmony. Importantly, this outcome means that the soul becomes its own best 'guardian': the soul learns how to preserve itself. Internally, the three elements will work cooperatively. For example, appetite will not overwhelm reason, but nor will reason thwart the functions of appetite as contrasted with keeping them in balance. Correspondingly, each person in the city will strive to remain in harmony with others. The cobbler will not try to take over ship-building; the farmer will not try to elbow aside the tailor and take over his craft; the philosopher-queen will not push aside the teacher of music and take over that art. In this way, as Plato pictures it, each person will be, in his or her singular way, a preserver of the harmony in the just city.

A familiar critique of this picture is that Plato seems to lock individuals in the just city into a single life-long role, with no lateral freedom of choice. We see some truth in the critique. Plato does seem to believe that every person has a natural inclination and equipment to perform one or another social function well. He pictures early education as a process in which persons come to realize, or discover, their distinctive bent and thereafter pursue it in cooperation with other people pursuing their particular talents. Dewey expresses great appreciation for Plato's insight that both internal psychological harmony, and external social harmony, will most likely prevail if each person is doing what they can truly do best. However, Dewey criticizes Plato for apparently presupposing a small number of social classes – to wit, workers, guardians, and philosophers – into which persons are born and from which there is no escape.

We think Dewey overlooked an important aspect of Plato's discussion – namely, Plato's sense that every activity, or what he calls 'craft', in the city can constitute a genuine vocation rather than merely a 'job' or 'occupation'. The philosopher-kings and -queens do require an unusually long education – they will not take office until what appears to be their late 40s or 50s – because of the highly complex and delicate leadership functions they will have in the just city. However, every person will learn his or her craft throughout life, for Plato suggests that *there is much to learn, continuously*, about every undertaking (*Republic*, 374b). Thus, to indicate that an individual would be 'fixed' into a particular position or craft does not mean that person's learning or development would be 'fixed' or predetermined.

Plato holds out an image of every individual becoming a true artist of their work. The farmer becomes more than 'just' a tiller of the soil, but someone who develops a profound, intimate expertise in soil, seeds, plants, timing with respect to what and when to plant, weather, and all the rest. The cobbler becomes an increasingly artful expert in leathers and other materials, simultaneously developing an aesthetic as well as practical expertise in the unfathomable range of human ideas about 'good shoes'. The music teacher cultivates an ever-deepening insight into child psychology even

while learning continuously about the dynamic constitution of music itself. In this light, Plato anticipates Karl Marx's later critique of capitalism as having destroyed the sense of craft for individuals as they become craft-less hired hands in factories (it is uncountable how many persons in today's global capitalist order do not have the opportunity to *experience* their work as a craft). Plato also anticipates Ralph Waldo Emerson's (1983, pp. 53–54, *passim*) picture of democracy in which each individual not only engages in a craft they know well but embodies the full dignity of that craft – each person becoming a living, dynamic role model to others in the polity in how to lead a truly artful life, whatever the person's vocation may be. It remains true that Plato seems to have had no conception of a cobbler one day becoming a music teacher, or vice versa. Our own sensibilities, like those of readers (we imagine), recoil at this thought. 'A cobbler forever!' 'A music teacher forever!' All the same, it bears emphasizing that Plato does not *reduce* individuals to their supposedly limited roles. Rather he pictures every person as a genuine, irreplaceable part of the *body* politic, and this conviction accounts, in part, for why he pictures education as a process of each person finding out what their purpose in the community can be.

It is typical to think of schools as instrumental in equipping students with the skills and abilities to choose and qualify for their careers post-graduation, with the goal of also choosing their lifestyles, places of residence, etc. In this sense, one could say that schools exist to promote *conditions for choice*, valuing the freedom to pick and choose. Plato seems to be looking at things from the other side. He is interested in *conditions for discovery* (cf. Sandel, 1982). He is looking not so much at the freedom to choose, but rather the freedom to truly discover what one can do well and to develop that craft in depth. This outlook is provocative and controversial, and we should press Plato hard with questions. But it is equally important to let him question *us* by asking us to examine our often unquestioned assumptions about freedom. It is not evident to us that today's shopping mall market of 'choices' supports a depth experience of a craft, not to mention of life itself. Moreover, we know that socioeconomic inequities severely limit the choices of some, so there is hardly a level playing field with which to begin. It is noteworthy that in Plato's just city public policy would ensure that there would be neither the poverty nor the excessive wealth discernible everywhere in the world today (*Republic* 421c–423a). In the just city, equality of opportunity obtains in the form we have sketched here – namely, that a person be 'equal to', or commensurate with in terms of disposition and ability, the craft in which they engage. Every person should have an education in poetry, music, and physical education through which they can discover their bent.

A lesson we draw from Plato's sometimes shocking account is that the issues he raises merit sustained discussion and inquiry in a philosophically-minded school. The relation between the individual and society; the meaning of 'harmony' in a person's individual constitution and that of a society; conceptions of justice; choice and discovery; opportunity and how to judge the worth of opportunities; inequities in the conditions for either choice *or* discovery – all of these issues, and more, can

help constitute the curriculum across the discrete subjects of literature, history, mathematics, science, and the like.

At the same time, we envision a renewed place in the school for the embodied arts of poetry, music, and physical education, all of which have been marginalized (for example, in the United States and in China) as schooling becomes increasingly a mechanistic process of preparing for and sitting standardized examinations. Dewey would describe the marginalization of these arts as the marginalization of the human factor in education. He is well-known for his systematic critiques of rote training, and for championing a holistic curriculum featuring wide-ranging modes of discussion, interaction, inquiry, and experimentation. Dewey pictures this pedagogy as walking hand-in-hand with the overall life of the school, which he describes on numerous occasions as a 'miniature society'. Moreover, he learned first-hand that such a school environment can be a practical reality (Dewey, 1985a; Tanner, 1997).

In a philosophically-minded school, students will continue to learn mathematics, literature, science, the arts, languages, and other familiar subjects. But all these will be taught not solely for instrumental purposes – to acquire the knowledge and skills to function in the world – but to cultivate a sense for craft and vocation – that is, a sense of what it can mean to *inhabit* life fully rather than as a superficial consumer of experiences. Moreover, such an ethos supports teachers and students in being mindful of truly ethical purposes, in the sense that they can come to treat the school as a shared world in which to cultivate themselves as thinkers guided by a sense of deep wonder and love for justice and how to render it *manifest* in the world of human words and deeds. In this way, instrumental learning will occur against a backdrop of visible, dialogically emergent human values which are at once ethical, aesthetic, intellectual, and social.

As we gather from Plato, Dewey, and numerous other scholars, 'philosophizing' is a term of art for reflective method, or for method when fused with thinking. As we have suggested, philosophizing will be an ongoing element in each and every subject in the school, in each and every classroom. It will be an ongoing element in all the communications that take place in school, and between the school and related communities whether near (e.g., parents) or far (e.g., virtual dialogues with teachers and students in schools on the other side of the globe). Philosophizing will itself be a topic of discussion and inquiry. And, as mentioned previously, because the school will be consciously formed mindful of Plato's pioneering educational proposals, the very elements in the latter will be taken up in timely, judicious ways. For example, the question Is there a human nature? Can be an explicit topic in every classroom. Every teacher and student can raise the issue in conjunction with underlying convictions, assumptions, and forms of inquiry in a given subject (including physical education).

Plato and Dewey elucidate the hopeful possibilities that can issue from what they picture as the humanity of reason and the reasonableness of humanity. The ability to reason positions human beings to weigh what they *ought* to do, even as it constitutes a living mechanism for criticizing poor reasoning, or its very absence, in the vicissitudes of societal life. The capacity to be reasonable points to arts of listening,

patience, self-criticism, and more. To illustrate these points, and to conclude this portion of the discussion, consider an imaginary scenario in an ideal school seen, first, through the lens of contemporary practice, and then through a lens informed by our reading of the *Republic*.

In many schools today, administrators expel students for breaking various institutional rules (Kafka, 2011). In some cases, the offenders are left to fend for themselves; in other cases, they transfer to other schools. This approach to infractions is understandable, and it seems reasonable especially when a student may have injured other parties. The practice of 'exile' is certainly common to many social groups. Indeed, the Athenians put forward this very option to Socrates, as a punishment for his conviction on charges of corrupting the youth and slandering the gods. If not in so many words, the prosecutors said to him: 'Go and live somewhere else, and we will leave you alone. Practice your impiety and corruption of youth elsewhere!' As we know, Socrates rejected the option. He chose to die rather than to leave his social group, believing himself innocent and yet remaining loyal to his polity.

The philosophical school assumes that the persons who come through its doors are capable of reasoning and being reasonable. Accordingly, school leaders ought as far as possible to give people the benefit of the doubt and retain them in the community (Ayers et al., 2001; Kafka, 2011; Kohn, 1996). Indeed, if schools do not keep students around simply because they have views and reasons different from the presumed norm, there is a sense in which school people are failing to face the fundamental reasons for *having* a school in the first place. What Plato conceives as the humanity of reason means that we value our human capacity to set ends based on reasons, and that we acknowledge this ability in other people. We respect each person as an agent who can set his or her ends. People may and do fall short in this regard. Every teacher and school administrator can doubtless point to students who err in their judgment, act in irrational ways, are hamstrung by illness or other difficult circumstances, and the like. If a student is clearly out of control and in danger of harming others (or him- or herself), then reasonable constraint is essential. However, the philosophical baseline of the school is to treat every member as a reasoning being, a being whose reasons may at first be hard to discern, and indeed hard for the individual to articulate. Israel Scheffler (1973) argued several decades ago that teachers and administrators need to engage students as reasoning beings, and to provide them reasonable explanations for their own actions as adults. He pictured this as a core ethical norm constitutive of the school as a community. In our view, it is vital to take the time, which may mean to *make* the time, to give every person in the school a patient, open floor for thinking, reasoning, debating, and deciding.

CONCLUSION: SOCRATES GOES TO SCHOOL

Public schools and the educators who work within them have always been under pressure to justify themselves on instrumental grounds rather than, by way of

contrast, on the aesthetic, moral, and reflective grounds associated with the liberal arts. This pressure appears to have intensified in recent years as economic considerations increasingly elbow aside time-honored educational aims and values. Many have criticized what they see as an over-reliance on standardized testing, which to them suggests an excess in the assessment *of* learning rather than balancing it with assessment *for* learning (Shepard, 2000, 2005).

Plato would aver that we are in danger of becoming enslaved to this narrow, top-down auditing system. Like other contemporary critics, he would warn of its troubling resemblance to a larger, globalizing ethos of harsh, unyielding competition that has generated frightful socioeconomic and political inequalities, and with all these developments coming on top of a steady dissolution of a craft-consciousness in many fields of work. For Plato, mindless subservience and excess are symptoms of imbalance, i.e. of a sick society. Plato envisioned education as a cure for this illness. Education can actively shape cultural narratives and associated sets of norms. It can do so, in part, through foregrounding philosophical discourse in which people learn to reason and to think publicly – the very circumstances of the school, at least potentially, as a social space.

When we read Plato after Dewey, we recognize that the human potential and plasticity that Dewey works hard to preserve in his educational ideal is a value that works symbiotically with a specific kind of social life. That is, freedom isn't prized for its own sake and at any cost, but instead is a kind of measure for the exercise for our humanity, both in material and in intellectual terms. Human beings are characterized by their ability to choose – an ability they can perform rationally (that is, aesthetically, morally and reflectively) – and this ability to choose rationally would constitute an aim of a philosophically-minded school. This mode of choice, precisely through the use of critical reflection and dialogue, can fuse with what we earlier called conditions for discovery. The school can assist students to come to grips with what Jonathan Lear (1992) calls their constitution as "finite erotic beings." They are finite because they are mortal and are always limited in their self-understanding and understanding of others. They are erotic – in the rich Greek sense of *eros* – not just because they have desires but because they can *educate* and *transform* them. With the provocation of a curriculum and pedagogy described in this chapter, they (and their teachers, we might add) can learn to desire not just what their appetites (and the advertising onslaught that fuels them) put on the table. Rather they can learn to think about what goals, purposes, values, and wants are *worthy*. They can learn to assess the options that, if they are fortunate, the world will present to them – seeing, perhaps, the difference between craft and vocation, on the one hand, and work that pays but *only* pays, on the other hand.

Plato insists that human beings are here by necessity: there is a reason, a purpose, for each person's existence. As we have suggested, he believes that for every person to realize their purpose, a 'balance of power' between reason, appetite, and spirit is required. An early education in music, poetry, and physical education is invaluable in support of this aim. Ultimately, as both he and Dewey contend, no one should

be telling another person what his or her purpose is for being in the world. Dewey remarks: "Plato defined a slave as one who accepts from another the purposes which control his conduct" (1985b, p. 90). Every person merits the experience of *arriving* intellectually at their purpose. When Socrates (figuratively speaking) walks through the doors of the philosophically-minded school we envision, he would see teachers and students engaged in inquiry into purpose. He would witness people focused on the academic subjects that embody human striving across the millennia, and engaging them in a spirt of grasping what they themselves discover is worth striving for and becoming.

To read Plato after Dewey is to position ourselves to philosophize with both of them, and to see, *pace* our earlier quote from Ryle, that it is we who harden their thought, not the texts themselves. Similarly, it is we who often accept hardened (or cynical) notions of what a school is and what it can be. We have argued in this chapter that school can be – as indeed it already is in some cases, or at least is at moments – a place for philosophizing deeply and systematically about things that matter. School can be a place to learn how to conduct oneself in what Plato calls the light of the Good, i.e. in light of that compelling, inextinguishable conviction people have in their bones that justice is *real* rather than a chimera. Plato and Dewey remind us that we do not need to "audit" our merit as participants in humanity. Schools are not places where teachers and students have to earn a place in the social balance. Schools are a platform upon which students and teachers can give an account of their dynamic place in that social balance. Through reasoned and reasonable discourse about the important things in life, school members discover, exercise, and come to love what resides at the heart of philosophy itself: wisdom.

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TEEMU HANHELA

3. AXEL HONNETH ON ROLE, FORM AND RESULTS OF PUBLIC EDUCATION REVISITED

INTRODUCTION

Honneth's recent essays, *Erziehung und demokratische Öffentilichkeit* (2012a) and *Education and the Democratic Public Sphere* (2015) emphasise public education as a crucial organ to reproducing our democratic societies. His arguments defend the necessity of public education against talk of privatisation (Murphy & Brown, 2012; West, 2014) and the claims made in favour of market economy efficiency, while highlighting the importance of democratic education. According to Honneth, democracy needs a democratically-oriented public education. A democratic society is not democratic if public education is not democratically-oriented. Also, for Honneth, free self-realisation and individual Bildung-processes are not possible anywhere else than in a democratic society. In this sense the existence of democratic societies and the individuals' Bildung are always at risk when public education follows ideals which are at odds with democracy.

Honneth's ideas of a democratically-oriented public education follow mainly from John Dewey's ideas, although Honneth contends that in order to find the theoretical roots for a democratically-oriented public education we need to revive the philosophical tradition of Kant, Durkheim and Dewey. Revival of this tradition against recent tendencies toward privatisation and market values in schools (e.g. U.S Department of Education, 2010; Carter & Meyerson, 2000; criticised by Ravitch, 2012; Masschelein & Simmons, 2010, p. 668) may be crucial, though this idea is only partly developed by Honneth. By criticising Honneth, I aim to explore how he understands the need for democratically-oriented public education. Honneth deals not with specific pedagogical questions concerning how democratic education should be organised in schools, nor with the role an educator and a pupil have in democratic oriented education – nor even with how Kant, Durkheim and Dewey's coherent philosophical tradition offer solutions for these problems. Honneth's educational discussion concentrates more on the current tendencies which threaten and challenge the truisms of democratic ideals in public education. These threaten to undermine the whole moral foundation of democracy, according to Honneth (2015).

This paper elaborates three pedagogical theorems from Honneth's arguments on public education. They are *the role of public education*, *the form of public education*

P. Siljander et al. (Eds.), Schools in Transition, 35–52.

and *the results of public education*. These theorems are key components in Honneth's (2012a, 2015) articles and serve to ensure some analytic clarity for the arguments concerning the public education which Honneth derives from the tradition of Kant, Durkheim and Dewey. From Honneth's theorems the second – the form of public education – is the most interesting, because by examining it we can get a practical view of how a democratically-oriented education should be organised in schools and the particular problems that could ensue. That is why this third component is the most elaborated in this paper.

The third and concluding chapter of this paper consider the similarities between Honneth's ideas on public education and those of Habermasian educational thought. Schools should produce participants that are competent in public discourses and capable of autonomous decision-making. However, whereas for Habermas it is crucial that democratically-oriented education generates the discourse principles as an inherent part of our identity, for Honneth it is vitally important that democratic society ensure in the first place everyone's personality development. For Honneth, a confident and fully authorised participant in the public will-formation processes develops only in a democratic society that ensures – via its free and equitable public education – a development of healthy self-relations, i.e. self-confidence, self-respect and self-esteem. For Honneth, an individual's ability to use and understand Habermasian discourse principles depends on the development of healthy self-relations. Thus Honneth emphasises that the prior task of public education is to secure the development of these self-relations.

By closely analysing Honneth's arguments, and armed with Kant, Durkheim and Dewey's assertions, this article offers some clarifications on how Honneth understands public education to be organised in concert with his recognition theory. It is hoped that this discussion, clarifying the role, form and the results of democratically oriented public education, will result in useful pedagogical outcomes and inspiration for our current school systems.

THE ROLE OF PUBLIC EDUCATION

Honneth aims to revive and raise discussion concerning the role of public education following the philosophical tradition of Kant, Durkheim and Dewey. In this revival Honneth uses Kant's (1899) lectures on pedagogy, Dewey's (1980) *Democracy and Education* and Durkheim's (1961) *Moral Education*. The first theorem Honneth derives from this tradition is that public education represents for all of these philosophers a crucial instrument for the self-perpetuation of democracies. These thinkers share the conviction that only public, and equally mandatory, education for all can guarantee reproduction of democratic societies. In his interpretation of Kant's (1899) lectures on education and Durkheim's (1961) *Moral Education* Honneth (2015) stresses that the cultivation of virtues and habits of democracy cannot be left solely the responsibility of parents. Public education is needed for the sake of equality and to guarantee the self-confidence of citizens – citizens who can, and

will, act voluntarily following democratic morality. For Kant and Durkheim (1961, pp. 145–150) it was clear that the demands and interests of parents must not cross the thresholds of school. Kant (1899, pp. 14–15, 20) asserts that public education is necessary to fill in the deficits of family upbringing ("Familienfehlern"): parents were thought to educate their children to merely adapt to the conditions of society regardless how bad the world may be.

Similarly, Durkheim (1961, pp. 18, 145–147) asserts that only public schools sufficiently develop a child's sense of shared social rules and duties. He argues in some detail that a child developing solely in the sphere of its family, or with only one educator, will learn to become a carbon copy of that family or educator, never learning to develop his or her own independent personality and thinking.

Dewey elaborates this line of thought as well, asserting that democratic society is peculiarly dependent for its maintenance on a broadly humanistic school education. Dewey contends that democracy can hardly flourish when school subjects are divided into two categories: a practical and simple knowledge for the masses and a more sophisticated education given to the few – knowledge reserved for the specialised cultivated class. Schools should neither serve the interests of families, nor the interests of the market economy. To Dewey's mind, schools must form a productive relationship with ordinary life, developing critical but useful skills and abilities to children. This productive relationship means, on the one hand, that schools take a keen part in life ensuring that the learning is meaningful, not abstract; and on the other hand, that schools choose and distil cultural content by removing harmful influences and reducing inequalities of ordinary life – thereby improving the future of students. Schools produce not merely skills for life, but represent life itself.

Dewey contends that a truly democratic society provides equal access to the common good for all its members. This means that in a democratic society everyone should have a basic income or livelihood, irrespective of their contribution to the common good. The well-being of the disabled and those unable to contribute anything worthwhile should be assured. Dewey asserts that the institutions of a society should be flexible enough to decrease the class differences and improve everyone's equal possibilities for contributing to and finding a meaningful way of life. Such a society offers an education which encourages individuals to understand the primary nature of social relationships and to learn the required self-control for democratic coexistence, and also the habits of mind which secure social changes without introducing disorder (Dewey, 1980, pp. 105, 126, 199–200).

Honneth underlines how all three philosophers agree that the state has the unique authority to coordinate an educational system which will generate civic capacities and the capacities for democratic action. This authority is democratically legitimate when public education is conceived as a joint civic effort to enable all citizens to exercise equally their political rights. Mounting pressures to change the particular role of public schools should be countered with the philosophical traditions of Kant, Durkheim and Dewey. By viewing these pressures through their eyes, we may understand better how harmful the values proposed for replacing democratic values

in schools might be (Honneth, 2015, pp. 26–27, see the critics of the values suggested, Ravitch, 2012; Masschelein & Simmons, 2010, p. 668, cf. U.S Department of Education, 2010; Carter & Meyerson, 2000).

THE FORM OF PUBLIC EDUCATION

The second theorem which Honneth elaborates on may be expressed in the following manner: public education can only guarantee democratic society when the form of education in public schools is as democratic as possible. Here the phrase 'democracy needs democracy' (Carleheden, 2006; Habermas, 1996), or better, 'democracy needs democratic education' characterises Honneth's (2015) position. This argument is much more problematic than the first theorem, because it is easy to agree with Honneth that reproduction of democratic society depends on a good public educational system, whereas we might not be so convinced that education or pedagogic action in schools need be in the form of democratic action, or that it could ever be so. However, a closer inspection of Honneth's arguments reveals two contrasting pedagogical traditions to which he refers. Kant and Durkheim emphasise asymmetrical pedagogical starting points, whereas Dewey defines pedagogical relations on more symmetrical grounds. By combining these two contrasting traditions, Honneth finds quite a solid basis for democratic education, where asymmetries and symmetries alternate in interesting ways.

Firstly, taking his point of reference from Kant's lectures on education, Honneth stresses that schools must reproduce democratic habits in their pedagogy – a pedagogy which is directed by humanistic values and the wellbeing of all humankind. For Kant (1899, pp. 14–15) the basis of such a scheme of education must be cosmopolitan, and this idea of a universal good is never harmful to us as individuals. The ultimate pedagogical goal of schools is to encourage children to commit themselves to a higher morality by taking the perspective of the whole of humankind. This perspective should direct children's lives so that they learn to live without causing suffering to others and would feel compassion for any other person's suffering. Kant contends that this empathetic attitude toward the whole of humankind is an awakening experience for youth, who begin to understand their global companionship with others (Kant, 1899, p. 20; also Durkheim, 1961, p. 77).

Secondly, Honneth asserts that one hundred years after Kant, both Émile Durkheim and John Dewey made explicit the link between democracy and education. Honneth (2015, p. 27) interprets Durkheim's educational ideas as stemming from a Kantian tradition, though Durkheim expresses these ideas more elegantly than Kant does. Durkheim elaborates on Kant's ideas on discipline as a necessary precondition for learning the social rules of a democratic community. He does this by acknowledging the child's passions and desires, or the child's "sensible nature". Honneth claims that Durkheim uses practical role models and playful activities when describing his idea of discipline. Though discipline is central to moral education, it is not a rough moral disciplining or bodily punishment. Durkheim refuses arguments for physical

punishment in schools. Punishment should never violate or cause harm for a child. According to Durkheim suitable punishments in schools would be, for example, setting limitations and allowing only minor roles for a child in his or her favourite plays and popular activities. Durkheim mentions also that criticism towards a child's inappropriate actions without disrespect and humiliation is functional punishment. For Durkheim discipline consists of many aspects that a teacher should master, like understanding, prudence, sensibility, respect for others and a teacher's commitment to his or her profession and to shared moral rules. For Honneth through this kind of Durkheimian discipline a child should initially come to master, first at a merely habitual level, the rules of democratic existence, and then, only later, learn the practices of democracy in a more rational fashion (Durkheim, 1961, pp. 198–206; Honneth, 2015, p. 27).

Honneth's brief remarks on Durkheim needs further explication, beginning with *discipline*. Discipline is the first and most necessary element of moral education for cultivating democratic habits. Honneth asserts that Durkheim conceptualises discipline more coherently than Kant does with respect to the child's sensible nature. This means that Durkheim does not believe that the nature of a child is something bad or negative, needing to be suppressed and ruled by authority. But like Kant, Durkheim understands that there is always an unresolved antagonism between our inclinations and our reason. For Durkheim there is no creature equipped solely with pure reason. Illusion that pure reason would lead to an autonomy collapses into an individual's instinctual inclinations, effectively sidelining that individual. Thus we cannot ignore passions and desires, but these must be in concert with our duties. No one obeys his duties without the will to do so. Bare duties as such not representing freedom, but we need to have the will and passions towards considerate actions towards other people. Durkheim suggests that cultivation of a child depends on a balanced relation between inclinations and duties. This develops when a child is taught to not suppress totally his or her desires and inclinations, but to learn self-control and moderation; a child should not yield without reservations to all of his inclinations and should understand that there is always a limit beyond which he ought not go (Durkheim, 1961, pp. 95–120, 142).

Honneth believes that Durkheim understands better than Kant 'the sensible nature of the child'. The idea of the sensible nature of a child sharpens through Durkheim's (1961, pp. 134–135) definition of a child's nature consisting of two built-in characteristics: *habit* and *suggestibility*. As a creature of habit a child has a natural desire for repetition. A child wants to repeat certain routines and habits, with these routines becoming almost compulsive. Durkheim explains that, for example, children can repeat a certain game indefinitely and like to have favourite stories to be told over and over again. Durkheim (*ibid*.) argues that discipline is needed to grow and intensify this natural built-in characteristic in a way that would develop the child's taste for regularities, or the desire for repetitions, routines and habits, i.e., create a creature of habit.

Durkheim emphasises a child's natural inclination towards regularity crucial for moral development. When a child learns to attach him or herself to something

external, something other than him or herself, he or she will understand practically the bases of morality. Any act that can be considered a moral act must be directed towards something else than the subject's own interests and egoistic aims. This is why Durkheim calls the morality to be taught to children 'impersonal morality'. 'Impersonal' refers to acts that supersede the person's own interests, where the aims of action are targeted towards others. Durkheim's 'impersonal morality' is similar with reciprocal altruism. According to Durkheim a child's natural desire towards regularity, is naturally altruistic and suggestive of 'impersonal morality'. When a child first learns the simple repetitions and routines, he or she later learns to attach him or herself to other persons and social groups similarly as he or she first attached him or herself to simple objects and habits. In this sense Durkheim (1961, pp. 218–219) asserts that attachment to routines is the basis for solidarity and altruism, i.e., morality in general. Honneth (1995, 2012b) explains in his recognition theory a similar intersubjective development of subjectivity, using Winnicott's object relation theory without, however, referring to Durkheim.

Durkheim's idea of a child's built-in characteristic, *suggestibility*, is described in greater detail than is his idea of a child's desire toward repetitions and habits. Durkheim contends that a child is naturally in a psychological situation strongly analogous to that of the hypnotised subject (1961, p. 139). Commands and instructions which work for a hypnotised person would similarly work well to command and direct small children. The educator and the hypnotist must give simple and clear orders, containing no altering options or hesitations. Durkheim emphasises, like Kant, the need for the educator to be an unquestioned authority for a child. Both educator and hypnotist adopt the imperative tone in their suggestions. Although for Durkheim two conditions – desire for regularity and clear commands – need to be fulfilled by the child in his relationship with parents and teachers, the educator needs to be as discreet as possible when using these powerful pedagogical tools (Durkheim, 1961, pp. 139–143).

The reader will not find from Honneth's (2015) descriptions Durkheim's ideas of a child's natural dispositions or *the desire of regularity* and *suggestibility*, while these being 'the sensible nature' of a child about which Honneth discusses. Durkheim's idea of suggestibility and his analogy of a child as hypnotised subject is a somewhat inadequate or outdated characterisation of the child's nature, although the unambiguous commands for the hypnotised and the child might work similarly in some certain cases. Durkheim's educational ideas would be more deserving of attention if three pedagogical elements of moral education, *discipline*, *attachment to social groups* and *autonomy* are examined as preconditions for 'the spirit of associations' in schools, the spirit which Honneth believes is crucial to democratic education.

Firstly, *discipline* is the primary element of a moral education, generating for children the needed impetus for commitment to social relationships. According to Durkheim the school and classroom are like a minor society and only school can cultivate self-discipline for a child. A disciplined class is like a well-organized

society, enabling happiness and wealth where all voluntarily and willingly find their places. Durkheim contends that children are the first to praise the disciplined classroom. Without discipline, the classroom as well as society in general, turns into anarchy; and children, as well as citizens, will therefore be in a permanent state of impatience with all their inclinations. For Durkheim lack of discipline in the classroom is morally dangerous, because agitation is collective. Discipline should, however, be as discreet as possible and pupils' obedience of moral rules should start from a teacher's own commitment to his profession and shared rules. Durkheim underlines that a teacher should be like a priest, where the priest's highest authority for morality is God, but for a teacher it must be impersonal morality, i.e., a global moral perspective concerning the wellbeing of the whole of humankind. While cultivating impersonal morality, the teacher's actions are not motivated by egoism and children understand that moral principles and morality are not personal to the teacher, but something that supersede and obligate both the teacher and the student. The morality that promotes the global wellbeing of humankind is this kind of morality (Durkheim, 1961, pp. 150–156).

Secondly, a teacher should create possibilities for *the attachment to social groups*, which is the second element of moral education. Durkheim (1961, p. 236) asserts that without schools we could never instil in the child a social sense and that schools should never withdraw from this obligation. For Durkheim schools must teach the skills for attachment to social groups, because the human being is naturally social: we cannot strip away all our sociality, for the more we approach the limits of solitariness, the more unbearable our life gets. Unsocial, egoistic and solitary conditions for humans are unnatural. Durkheim defines the important groups we need to teach our children to associate with as family, nation and humanity. Only if these three groups are actively in a person's life he will develop an intact personality (Durkheim, 1961, pp. 43–44, 72–77, 217).

Similarly Honneth (2013) elaborates important groups to which children must learn to associate. He calls these groups the spheres of social freedom consisting of *personal relationships*, *the market economy* and *democratic decision making*. Central to these social spheres are the forms of mutual recognition *love, rights* and *solidarity*. The spheres of social freedom should enable learning processes where individuals understand the vitally important the development of an intact personality is. The intact personality development depends on the necessary forms of mutual recognition love, rights and solidarity that we all need to learn to receive and to give. According to Honneth (2012a, 2013) public education has the demanding task to select and transform educative elements from our existing forms of freedom. The forms of freedom should be taught to children so that they learn to understand how social freedom, love, rights and solidarity must be prior to any other idea of freedom, like negative freedom and reflexive freedom, i.e. moral freedom. Thus public education should somehow contribute to improving and to distilling the educative elements from personal relationships, the market economy and democratic decision making.

Durkheim explains that in cultivating the 'we-spirit,' a teacher should use the full weight of his or her authority. This would entail taking advantage of every occasion in the school where children may sense their unity in a common enterprise. For example, punishments and rewards used in the classroom should be accepted by all students; thus Durkheim suggests that punishment should be collective. Collective criticism and encouragement create a general atmosphere of solidarity, which binds students to their companions as the group becomes conscious of its responsibility for the morality of its members. In school a child should become aware that he is working for everybody and that everybody is working for him (Durkheim, 1961, pp. 235–249).

The third and the highest dimension of moral education for Durkheim is *autonomy*. Autonomy should be based on a scientific explanation of morality, or as Durkheim (1961) puts it 'science is the wellspring of our autonomy and thought is the liberator of will' (pp. 116, 119). Autonomy is scientific rational thinking in the sense that, for an autonomous person, there is no reason to admit anything in the nature of things that is irreducibly irrational –for example, the belief that science can falsify. In schools, the practice of autonomy should not start from the mechanical learning of moral principles or learning moral justifications by imitating the logic of mathematical thinking. Rather a child should learn to understand the rationality of rules; a child must learn to sense the moral authority in the rule which renders it worthy of respect. Durkheim asserts that only by this kind of moral education are we able to evoke a sentiment, or ameliorate morality, on which a wide-spread conscience of individuals should be based. Only this kind of public conscience-basing on rational moral thinking can be the secure basis for a democratic society. According to Durkheim, teaching morality for autonomy is not indoctrination, nor preaching, but explaining and understanding the moral rules (Durkheim, 1961, pp. 121–122, 150–156).

Durkheim (1961, pp. 253–255) criticises Cartesian scientific thinking for narrowing all the premises back to the subject and reducing reality to simplistic facts. Durkheim compares Cartesian thinkers to the mathematician who thinks that we can find and transform by our reason all scientific truths in the form of mathematical principles, i.e., Cartesianism is for Durkheim nothing but the attempt to reduce knowledge of the world to universal mathematics. Durkheim criticises Cartesian simplicity representing more faith than science, when assuming that the mind can draw knowledge out of itself only if the initial hypothesis contains that knowledge implicitly. Verification of the hypotheses is implausible and the idea that the facts of nature are conceivable and, once found, then transformable to law-like facts. Rather, children should be taught the history of science, in order to make them see the prolonged processes behind the discoveries and nature in continuous flux. Cartesianism should not be cast aside; it should instead be reformulated as a rationalist understanding that humans may never achieve complete understanding. At the same time, the unknown areas of our understanding are progressively reduced by science and that there are no limits on this process which continues indefinitely (Durkheim, 1961, pp. 260–265).

Morality, as well as society, must transcend the individual subject. They must be something other than knowledge of subjectivity. Durkheim argues that mathematical sciences based on Cartesian thinking cannot offer a path for a scientific teaching of morality, unlike physical and natural sciences with their complex ways of capturing nature. Here is Durkheim discretely approaching Dewey's position by asserting that the experimental sciences serve as a more prominent model for teaching moral understanding than the rational Cartesian tradition. Durkheim proposes that that the teaching of science should not be a repetition of perceivable facts as in the Cartesian tradition, but rather an initiation into the whole process of science, the experimental method and the constant development of scientific results. Durkheim notes that teaching a scientific understanding of morality differs radically from the metaphor of the hypnotised. First, when cultivating the idea of the discipline, the analogy of the hypnotised and the child seems suitable, but when children are mature enough for scientific understanding, they should break the hypnosis with abstract reasoning and with actual experience. Durkheim takes biology as an example, marvellous at showing pupils the complexity of plants cells and planting in their minds the idea that society is not simply the sum of individuals who compose it. The experimental sciences offer a path for the thinking processes where the ideas on society and morality are not conceived simply by following individualistic premises (Durkheim, 1961, pp. 260–265).

For Honneth, it is a natural step after Durkheim to analyse Dewey's *Democracy and Education* to clarify what autonomy in scientific inquiry at the school-level could mean. In other words, the question is how democratic education as a guarantor of autonomy should be organised in the form of 'communal inquiry'. However Honneth's (2015, pp. 27–28) remarks on Dewey are brief. He notes that Dewey has similar arguments to those of Durkheim, though approaches those concerning education from a Hegelian perspective. In Honneth's (2015) discussion Dewey defines public school as a place where the pupil engages in *communal inquiry*. In schools and through the use of *cooperative learning,* students should actively participate in all school affairs. In this way pupils will become habituated early on to acquiring the spirit of *democratic cooperation,* which will allow them in their adulthood to present themselves as self-confident citizens in the political arena. Honneth's interpretations of Dewey need to be extended in those aspects concerning communal inquiry, cooperative learning and the spirit of democratic cooperation.

Firstly, Honneth's allusion to 'communal inquiry' could be explained through Dewey's idea of *reflective experience*. According to Dewey, in a reflective experience we encounter a problem which triggers our thinking. The most important task for schools is to generate suitable problems for enhancing this kind of thinking. Dewey criticises the thinking actually cultivated in schools, where thinking is considered separately from the matter being thought about. Experience and thinking are excluded from each other, and seen as separate spheres of action in schools. Following Dewey, the problems presented in schools are not genuine problems, but, for example, a teacher's problem or schoolbook problems – not the child's own

problems. For Dewey, any subject in the curriculum should be taught in the most non- scholastic way possible and immediately relevant to skills needed in ordinary life. Dewey emphasises that the situations and skills needed in ordinary life offer children something to do, not something to learn. In ordinary life doing compels children to think; and children learn when actually engaged in an action. Theoretical knowledge or any knowledge not applicable to ordinary life has no place in school. Against this context Dewey hardly need wonder why a child should find so many productive problems and solutions outside of school, but not in school (Dewey, 1980, pp. 160–169, 176).

So communal inquiry as reflective experience must begin from a child's own engagement in the problems of ordinary life. Dewey defines five methodological stages in this process to distinguish it from the trivial *trial and error*-method. The first stage is that we are in a state of a confusion, perplexity, and doubt because we are involved in an incomplete situation, the full character of which is not yet determined. This state could be an innovative and creative stage where the material for hypotheses is gathered. In the second stage the problem develops as hypothetical anticipation, where we start tentatively to interpret the given elements, attributing to them a tendency to effect certain consequences. This is causal thinking, where hypotheses are laid down. *Third* we enter into a state of careful survey where examination, inspection, exploration and analyses of the hypotheses are conducted for clarification. Clarification of the hypotheses should valorise all possible angles of the problem at hand. *Fourth*, is the specification of the tentative hypothesis with the aid of the knowledge from the previous analyses, from stage three. *Fifth* is the state of testing the hypothesis, where we plan a course of action based on our hypothesis and apply it to the current state of affairs. For Dewey the third and the fourth steps distinguish the reflective experience from the trial and error method. These steps make thinking properly an experience (Dewey, 1980, p. 157). Dewey's stages of reflective experience recall Popper's (1989) steps in the falsification process, without, however, being as exact a formulation or emphasising falsifiability. However Dewey's fifth stage provides, in turn, a crucial criterion of demarcation between science and metaphysics.

The process of inquiry outlined above is communal in the sense that, with the methods of reflective experience, schools should form productive relations with the surrounding community and society. Dewey criticises schools for not having this relationship and for being equipped exclusively with theoretical knowledge regarding two problems. Firstly the experiences of ordinary life do not receive the enrichment which schools could offer and, secondly, thinking is reduced to the repetition of half-tested or ready-made arbitrary facts. For Dewey school subjects are important as long as they have enriching effects on our lives; a curriculum should be designed in such a way that school subjects would directly enrich students' lives and would also produce materials that inspire pupil's interests.

Dewey (1980, pp. 241, 250) states that 'as long as any topic makes an immediate appeal, it is not necessary to ask what it is good for'. Similarly he quotes an American

humourist by asserting that 'it makes no difference what you teach a boy so long as he doesn't like it'. Dewey combines two ideas. One, that school subjects should concern immediate interests and life of children and, two, that if subjects can do this then they are automatically interesting for children. According to Dewey it is useless to ask about the usefulness of school subjects, because some goods are not good for anything, they are just goods. School subjects should have intrinsic value and are useful even in cases where there is only one student interested in them. For Dewey, only instrumental values can demanded the criterion of usefulness and school subjects should not contain instrumental values.

For Dewey, the subjects taught in schools as well as the historically developed information and knowledge of humankind (e.g. scientific discoveries), are significant and useful only if applicable for advancing, revising and improving our social relations and communal life with each other (Dewey, 1980, pp. 160–169, 199–200, 248–250).

Dewey defines three conditions to forming a productive relationship between school and everyday life: (1) Schools should generate the simplified environment that imitates the life of its surrounding society. This means that, schools should filter and select the educative elements from our cultural heritage and transform them into a more comprehensible form for children. Also schools should provide a logical incrementation of growth from simple matters to complex. (2) We should eliminate as far as possible unworthy features in the existing environment and remove undesirable habits. By this, Dewey means eliminating traditions which are unworthy and unethical. Schools execute the critical task of making society more enlightened – not by embracing all existing achievements, but by choosing those which promote a better future society. (3) Schools should also take on the task of balancing students' environments, where each individual has the opportunity to escape from the limitations of the social group in which he or she was born, thereby living within a broader environment (Dewey, 1980, pp. 24–25).

The second issue which Honneth (2015) adopts from Dewey is the idea of 'cooperative learning'. In his *Freedom's Right* (2013) Honneth gives an interesting example of this type of learning as a process of *mirroring* where all family members' should positively mirror and contribute to each other's self-relations by using mutual recognition. Honneth argues that when playing with their children, fathers and mothers can see the need to regress to their children's level of development, just as children can be encouraged in their interaction with their parents to experiment with and try out adulthood. This is for Honneth a peculiar process of *regression* and *progression,* where the generations' boundaries become blurred and through this act of experimental role-switching the uncontrolled element of our nature is briefly relaxed. Honneth argues that children can experiment and try out an adult's level of development as they become their father's or mother's partner in interaction, while parents can free themselves from the biological circumstances of their age by acting as their children's play-mates. Honneth contends that this de-differentiation works not only in the imaginations of the family members, but also in their practical

interaction with each other. According to Honneth, when we play with our children or grandchildren we can move forwards and backwards in our organic existence as if our external and internal nature imposed no limits upon us (Honneth, 2013, pp. 170–171).

Dewey similarly expresses ideas on *regression* and *progression* when asserting that a child's state of immaturity should not be understood merely as a negative state which a child must relinquish by fulfilling the ready-made standards of adulthood. Dewey even asserts that for certain moral and intellectual purposes adults must "become" little children. Dewey contends that, in the case of specific scientific and economic problems, we may say that the child should be growing into adulthood. However, adults should be growing similarly towards a sympathetic curiosity, unbiased responsiveness and openness of mind which we easily find in children (Dewey, 1980, pp. 47–55).

Dewey defines more precisely than Honneth the role of the educator in cooperative learning. Dewey contends that the task of the teacher is to make a child think; all the teacher can do is to instigate this learning by providing the conditions for stimulating thought and, by entering into a common or conjoint experience with the learner, by take a sympathetic attitude toward his or her activities. Dewey suggests that a teacher should actively partake in the students learning processes; in shared activity the teacher is a learner, and the learner is, without necessarily knowing it, a teacher. Dewey goes even further to ensure that less conscious actors are on either side as teacher giving instructions or learner as receiving instructions they are, the better (Dewey, 1980, p. 167). Here Honneth's idea of 'experimental role switching', where the roles of a teacher and a student are unconsciously switching, is elaborated at the school level by Dewey.

Dewey however, seems to acknowledge the problem of pedagogical asymmetry. For him, a teacher's experiences are far deeper and more specialized than a child's. Thus, similar manifestation of educative problems touch not upon both of them. Dewey asserts that because of these differences in knowledge the teacher should not be occupied only by the subject matter, but should be able to make the subject matter match the pupils' present needs and capacities. Teachers should direct children's experiences in the direction of the experiences of an expert or more experienced person by recognizing the natural course of development and offering situations which involve learning by doing (Dewey, 1980, pp. 190–193).

Thirdly, Honneth derives from Dewey the idea of an early childhood socialisation loaded with *the spirit of democratic cooperation*. Dewey contends that establishing this spirit is to make the individual a sharer or partner in the associated activity, so that he or she feels his or her group's success as his or her success and its failure as his or her failure (Dewey, 1980, pp. 18). By this Dewey means that when a child learns the emotional attitude of the group, he or she absorbs the groups' ends and the means to gain these ends properly. Then a child's beliefs and ideas take a similar form to those of the group and he or she will, at the same time, gain the same level of knowledge as the others in the group.

Dewey emphasises that this attitude of group spirit is crucial in schools; all elements of public school, administration, curriculum and methods of instruction of the school should be animated by a social spirit. Dewey (1980, pp. 368) defines two conditions that need to be fulfilled in schools to establish this spirit: (1) The school must itself form a community life, with everything that this implies. Social perceptions and interests can be developed only in a genuine social medium, one where there is reciprocal atmosphere. This reciprocity refers to cooperative learning, where each students contributes towards shared goals and promotes the development of the others in the group to better achieve common goals. By simulating the practices of ordinary life, schools should offer interaction, communication and cooperation. (2) Learning in schools should interrelate with life outside of school in the sense of creating within students the capacity to live as a social member. For Dewey a social member is a person who understands the benefits of living in a social group through his or her duties and advantages. According to Dewey (1980, pp. 369) the conditions for a social spirit are not the external skills to be learned, but rather develops through socialisation process where education and school are active participant of social life.

THE RESULTS OF PUBLIC EDUCATION

We can outline Honneth's third theorem, the thematic of the 'results of public education' by examining how Honneth considers Kant, Durkheim and Dewey, these three philosophers, being convinced of a correlation between cooperative democracy oriented education and the development of cognitive skills and abilities of a pupil. Following these philosophers, Honneth argues that the more democratically oriented a school is the better the development of the pupil's cognitive skills and abilities; or, to put it another way, the more democratic school is, the better the learning results. In the case of Kant (1899) this correlation becomes apparent when examining these 'better results' developing when schools enable the development of self-confident citizens. Honneth believes that for Kant the task of public education is to guarantee a sufficient amount of self-respect and self-esteem that will allow the individual to act as a self-confident citizen of a republic. The layers of self-esteem are cultivated in schools by teaching Kant's 'mechanical skills', 'pragmatic, prudence' and 'moral autonomy'. These skills contribute to an individual's acquisition of various kinds of self-esteem. For Kant, public school should guarantee that every citizen have access to the key good of 'self-respect' before he or she can participate in republican self-legislation as an equal among equals. For Honneth, Kant's three pedagogical elements – professional skills, civic competence and moral principles – represent the generalised media of social recognition which the young acquire through pedagogical processes, making them aware of their worth in the eyes of others. Honneth explains that through technical knowledge pupils gain respect as individuals; through civic knowledge, pupils gain respect as citizens; and through the acquisition of moral

principles, they earn value in the eyes of the human race (Honneth, 2015, pp. 25–26; cf. Kant, 1899, pp. 30–31).

Honneth finds the correlation described above in Durkheim and Dewey's work as well. These authors define three functions of public education; (1) teaching the qualifications for a profession; (2) compensating gaps in knowledge; (3) preparing pupils for the role of citizen. Of these functions, only the last one is crucial. The professional skills and the compensation of differences in knowledge are thought to develop as a side product of the training of democratic dispositions and cooperative action. In Honneth's (2015) interpretation, Durkheim and Dewey contend that pupils should not learn in schools only quantifiable knowledge and individual rules of right action but, rather, modes of conduct that enable self-confident action within a cooperative community.

Dewey (1980, pp. 125–128) expresses a similar idea, arguing that an efficient educational aim creates the capacity to share in a give-and-take of experience by transforming one's experience into something more worthwhile to others. Any aim that enables a person to participate more richly in the worthwhile experiences of others is an effective educational aim. Dewey contends that if democracy has a moral and ideal meaning, democracy cannot adapt the narrow idea of industrial efficiency for its leading principle, but must offer to everyone the opportunity to develop distinctive capacities. Honneth's interpretations become more evident when Dewey asserts that commodities or beneficial results which come with the "efficient personality" are in the strictest sense by-products of education. According to Dewey the problem of 'contemporary' education is that it transforms the demands of efficiency as the inner nature of man cultivating not humanistic and cultural values. This kind of achievement culture which Dewey calls "anti-culture" (Dewey, 1980, p. 129) produces 'cultural' and 'utilitarian' personality types which exist as inorganic composites in modern society. Cultural persons perform the intellectual and higher tasks, while utilitarian persons perform the manual labour or service – working without the possibility for liberating imagination and critical thought. For Dewey the demands of efficiency should be considered only in the context of what one is in relation to others (Dewey, 1980, pp. 129, 266).

Honneth concludes that the result of public education is a learning process where pupils understand what it means to treat their fellow pupils as equal partners in a shared process of learning and inquiry. These are the skills needed for the regeneration of democratic society, i.e., skills for a communicative practice that fosters moral initiative and the ability to take up the perspectives of others. According to Honneth both Dewey and Durkheim see a close correlation between cooperative democracy-oriented teaching methods on the one hand, and pupil's performance at school on the other. Honneth uses the Finnish school system's success in the PISA survey as an illustration of this correlation: the more schools are democratically oriented, the better cognitive abilities and skills are learnt (Honneth, 2015, pp. 28–29).

CONCLUDING REMARKS

This paper analyses two of Honneth's (2012a; 2015) educational writings, which follow three categorisations: the role, form and results of public education. In the first category, the role of public education, this paper brings forward the idea that education is an inherent part of everyone's civil rights. Following the recognition-based theorems, it is generally agreed that everyone has the right to freedom; and that our collective freedom depends on respecting each other's freedom. Everyone must learn not only that he or she has the right to freedom but also the need to respect the freedom of the other. To establish freedom as an inherent part of democracy all persons must have equal possibilities to partake in public education. For Honneth democratic socialization is a public matter and a public responsibility which must be delivered pedagogically in the schools.

When considering education as a basic human right from the intersubjective standpoint, then even the fashionable liberal idea of public education seems to be commensurable with these premises. However, Honneth's (2013; Fraser & Honneth, 2003) idea of social freedom shows that democratic public education should extend further from liberal perspectives by fulfilling four dimensions of equality: *equal entry; equal opportunities; equal treatment;* and *equal results* (developed from Carleheden, 2006). Freedom is not achieved only with the liberal idea of education, where public education offers equal right to the same education by guaranteeing it to all, including equal possibilities for entry and equal treatment: it should also take into account the less-talented and those in disadvantaged social conditions. Disadvantaged students should have the right to a better education than others, so that public education will achieve equality in the results (see more Carleheden, 2006, p. 535; cf. Fraser & Honneth, 2003). Honneth expresses this idea about equality in different words, when he asserts that all should have equal rights for developing an intact personality and those abilities for confident participation in the public will-formation, requiring the four dimensions of equality granted in public education.

The second theorem – the form of public education – is examined to improve our understanding of how democratic education should be organised if the tradition of Kant, Durkheim and Dewey is to be taken seriously. Honneth's idea on democratic education contains elements from Durkheim's *discipline, attachment to social groups* and *autonomy* combined with Dewey's idea of *communal inquiry* and *cooperative learning*. This article demonstrates how Honneth aims to combine two contrasting philosophical traditions: on the one hand Kant and Durkheim, who emphasise the educator's authority and discipline, offering insights that democratic values are not something that naturally occurs in children or can be left altogether up to parents; and on the other, Dewey's ideas of communal inquiry and cooperative learning which conceives the pedagogical relation from symmetrical and communicative starting points. In the Deweyan tradition, democratic values seems to be something that grows naturally from within children.

Despite these differences, Honneth outlines Kant, Durkheim and Dewey's educational ideas, which actually approach Habermasian (Carleheden, 2006; Martin, 2012; Pedersen, 2015) lines. It is possible to conclude Honneth's educational arguments concert with Habermasian ideas. Both Honneth and Habermas emphasise the skills or abilities for empathy as essential learning task. Schools should teach to each participant to place himself in the perspective of all other persons. Schools should be places where children learn freely the discussion skills where they need to set the arguments and be able to justify and explain their norms and chosen arguments. This kind of 'democratic education' should teach a shared understanding of rational discussion, where consensus is reached on the grounds of the better argument and excludes every form of violence, threats, external influences and unequal right of the more powerful, or the "right of the stronger". It would be an exercise of non-violent conflict resolution in schools. For children it is the process where pupils learn how to convince and to be convinced by the 'forceless force' of the better arguments (Carleheden, 2006, p. 537; Habermas, 1998; cf. Honneth, 2015).

The third theorem of this paper, the results of public education, analyses the correlation between democratic education and the development of cognitive skills and abilities. This correlation can be expressed thus: the more schools concentrate on improving the development of intact personalities, the better the results. According to Honneth, all three thinkers – Kant, Durkheim and Dewey – agree that the skills underlying the development of self-confidence allow us to receive recognition from others and to give it back to them, making us worthy in each other's eyes. When schools concentrate on the task of securing self-confident citizens, the skills needed for various vocations and successful careers are thought to develop naturally and should never be the main task for public education.

The third theorem reveals Honneth's distinctive position from Habermas' own (1996). For Honneth it is not enough that in democracy the discourse principles become an inherent part of our identity, but instead the intact development of identity that should be secured and prioritized. Competency in public will-formation means not only rights and morality, but an intact personality equipped with self-confidence. For Honneth (1995, 2013), Habermas' (1996) procedural idea of democracy, though significant, fails to explain sufficiently which social institutions are responsible for the socialisation process so that a child's competence in discourse would develop properly? To understand and to be fully capable of using discourse principles, citizens need to have an intact and healthy identity. Thus, discourse ethics need to be complemented with three forms of recognition: *love*, *rights* and *solidarity*. These forms of recognition produce three positive self-relations: *self-confidence*, *self-respect* and *self-esteem*. These are the exact self-relations which public education should produce as its output. Honneth (2015) explores Kant, Durkheim and Dewey to find similar ideas.

Honneth (2013) offers more complicated characterizations to democratic education than Habermas. Honneth introduces the idea that democratic education should enable social freedom. Honneth's 'social freedom' consists of the social mediums such as

personal relations, market economy and democratic decision making. When a child's socialization processes proceeds, these mediums of recognition (briefly, love, rights and solidarity) and mediums of social freedom their intact personality will develop and the child will learn competence in public discourses. Honneth (2013) contends that Durkheim (1961) similarly examines socialisation processes leading to social freedom via *family*, *nation* and *humankind*. Honneth (2013, p. 254; also Pedersen, 2015) emphasizes that Habermas is not interested in discussing the normative resources inherent in friendships and family or in considering the market economy as normative praxis, but tends to see positive development in these spheres only as a happy coincidence. Honneth considers things differently: that freedom must be at least partly realized in the intersubjective relations of family and friendships before it can be realized in the market economy and in democratic decision-making.

The problem in Honneth's project is that his idea of social freedom in *Struggle for Recognition* (1995) and *Freedom's Right* (2013) is not clearly connected with his recent educational writings. Honneth contends that when the spheres of social freedom and the corresponding forms of recognition, *love*, *rights* and *social esteem* are permanently established, then individuals growing up in these institutions will learn in the course of their *Bildung* process to develop desires and goals that can be satisfied only through the complementary actions of others (Honneth, 2011, pp. 313–317; van den Brink, 2013, p. 24). However, this reader finds no mention in either *Freedom's Right* or in the *Struggle for Recognition* what role public education has in this process. Nor do Honneth's educational writings conceptualise how the forms of recognition and corresponding social institutes should be taken in the context of education. Thus, ideas on democratic education based on the tradition of Kant, Durkheim and Dewey seem detached from Honneth's recognition theory and ideas of social freedom. The connection of education and recognition within the spheres of *personal relationships*, *market economy* and *the democratic public sphere* needs further clarification to make Honneth's educational ideas more workable and conclusive.

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JANI KUKKOLA

4. WHAT ARE UNIVERSITIES FOR?

From the Community of the Selves to the Transformative Potential of Higher Education

Despite the hand-wringing and claims of managerialism, corporatization, and bureaucratization that continue to characterize much of the discourse on higher education today, the quest for its philosopher's stone, its essence, still endures in some quarters. In some ways, the existence of the philosopher's stone is very much in evidence in universities across the globe today, but perhaps not so much as that unique substance with the capacity to transform base students into precious ones, but simply in the fact that the university still lives and thrives. Educational institutions want to, and are proud to, call themselves universities. But the question that educationalists then might be tempted to provide an answer to is what exactly is it that possesses the transmuting power to give eternal educational life to the institution? Straightway we are led back to the question of an essence, rather than being satisfied with evidence. My contention here is neither that we should be dismissive of the possibility of an essence, nor complacent about the evidence seemingly available. My aim is to think about how we can harness the optimism inherent in essentialism, at a time when academia too often tends towards despair, without placing false hope in the perfection of the human soul that it can imply. To this end, I will make a case for the transformative potential of a university education, considering it a phenomenon that can capture something of the uniqueness of the institution relative to other forms of education, without making claims to have captured its soul altogether.

In this chapter, I attempt to show if not fully, at least to a significant extent what the university essentially is. Thus the outcome of this article may not be sufficient but certainly a necessary one for the essence of academia. Although it is quite possible for there to be more than just one model for the university, I scrutinize the potential for an essence which all these models boil down to in order for them to be recognized as models for universities in the first place. This endeavor of mine is not a new one. Alongside the development and expansion of universities from their medieval origins, has been a long search for the 'idea' or the 'meaning' of the university itself. This idea may not necessarily require a fixed essence *per se*, as I will come to claim, but rather a dynamic discursive transformation potential as a *community of selves*.

P. Siljander et al. (Eds.), Schools in Transition, 53–63.

Essentialism, namely the idea that we must set out to discover the necessary characteristics of things in order to know them may often be nothing more than the examination of our own definitions. The essences we discover may be merely nominal. Something more than our own classifying activities must be related to the thing if we are to say not merely what it as a matter of fact is, but what it must be. The idea of the end or purpose of a thing may supply this: if we conceive men or trees as somehow aiming at perfection in their own kind, it becomes possible to speak of their essential nature at least in terms of potentialities. But we do no longer conceive natural objects in this way, and we do not talk of their essences. Institutions like the university, however, are not natural objects. In their case essentialism, while it being dangerous in the hands of the careless, may be unavoidable.

In this article, I will argue that the transformative potential of, say, schooling, is different to that of higher education, and this provides a starting point for looking at what is unique about the purpose of higher education, especially today. I propose a phenomenology of the university that shows how higher education is both part of a more general discourse concerning the value and purpose of education, whilst distinguishing itself by specific values, characteristics and pedagogical approaches. As of starting point for this treatment, I shall consider these following questions:

1. (How) does the university distinguish itself from schooling?
2. Does the tradition of considering university's purpose in terms of an 'idea' of the university account to the ways in which it is called upon to enact its purpose, rather than have that purpose designated for it?

SEARCHING FOR THE IDEA(L)

Even though institutions are not as John Stuart Mill claimed, at every stage of their existence made what they are by voluntary human agency, they are what they are at any time of their existence because of the quality of the thought of their members. What an institution is, what differentiates it from others, cannot be explained fully in terms of observable and measurable factors, but how the members themselves conceive it (Griffiths, 1965, p. 188). For institutions the essence, the idea, is logically prior to any contingent measurable qualities, in that, institutions cannot be what they are unless they are already conceived as such-and-such.

However, the idea of the university is also constituted by what the university *does*. "Doing" needs to be understood very broadly here. There are different activities, like teaching and supervision, and research of course, going on at the university. These activities can be measured, but the measurement does not give us immediate information about what university is, and even, what it *really* does. Teaching itself doesn't demarcate university from any other educational institutions, say vocational education, nor even from other higher education. But certain kind of teaching, and supervision, play a role in the constitution of the university. Action is necessary for pedagogical institutions, but action itself as such does not unconceal the idea behind

them. What we need is a look at the *value* of those actions. University acts upon a justifiable ideal, which the university serves to fill. This ideal is embedded in the "workings" of the university, in the way of life we call academic.

What is then the activity in accord with the ideal of the university? The valuable activities at the university must possess, we might come to think, a quality we might call *reciprocity* (Griffiths, 1965, p. 190). In acting on it, it bounces back again and one may miss it or it may bump one in the nose, or it may return from an unexpected angle which represents itself as a discovery demanding a new response. The university, while commencing with its teaching, supervision and research, acts upon the value of mutual reciprocity: one cannot transform the knowledge we've gathered together to something else on one's own. One needs the bouncing back of ideas and thoughts with one another in order for the new knowledge to be constituted and recognized as something new and valuable.

This value of the university, its ideal as reciprocity is not something that has been there from the start. Throughout the history of the university, the institution has tried to fulfill many, often conflicting ideals. What follows here next is a short walkthrough of the different ideas of the university from its "invention" to its present late modern condition. I attempt to understand the institution in terms of the many ideals the university has been justified with. In the last section, I shall go on to discuss and justify the university as a place which has to take the participating individuals seriously ontologically by necessity, as selves which form the scientific community. Upon this idea of the university as a community of selves, the totality of scientific culture self-cultivates itself. The individuals and their reciprocal interrelationship is where one needs to start when justifying the idea, or even ideal, of the university as a place of teaching and learning; giving and asking for reasons, the logic which the disciplines of the scientific community rely on.

THE RISE OF THE UNIVERSITY, HUMBOLDT AND THE IDEAL OF UNIVERSITY AS BILDUNG

The "invention" of the university goes back to the medieval Italy, and it meant a significant change to the level of scholarship of the monasteries and the cathedral schools. The dominant view of knowledge was then, that all knowledge had already been accomplished, and that it was the task of the university just to preserve and pass it on. The basic task of the university, thus, was not creation of new knowledge, but vocational education. The early idea of the university reigned all the way until the brink of the modern age, or more specifically to the age of the Enlightenment. It is an interesting fact to point out, that the early scientific revolution happened mostly apart from the university. Most of the early great inventors and natural scientists worked outside the formal educational institutions, in places which found their formal organizational structure in England as the Royal Academy of Sciences and in France as the Academy of Science.

A new model to replace the early model of the university was already on its way in the 18th Century Germany. Especially the new universities of Göttingen and Halle, the intellectual "hubs" of the era of the Enlightenment, combined both teaching and research in their operation. History professor Friedrich Schiller made a plea for the new university institution in his inaugural lecture at Jena. According to Schiller (1789; cf. 1973; also cf. Kantasalmi, 1990), the university had two kinds of academic practitioners, those teaching for a living and those who Schiller called "the philosophical heads". Those who taught for a living aimed at securing their position in the academic teaching community by satisfying the needs of the employer. Even in today's academic community, one cannot help but notice the urgency in which universities demand fast track bulk-publishing and other formal academic merits. This even to the extent that those publishing their work won't have much time to think in much insightful way what they've written, nor do they actually *know* the stuff they've written. Even if this kind of character looking for solely academic employment is a caricature from a variety of actual academic life, it is not without any connection to reality.

The philosophical heads, thought Schiller, were quite the opposite of academic achievers. They got enjoyment from new ideas, and worked continuously to expand their own fields of research and to seeing them as a part of the whole of the human knowledge. Academic achievers jealously protected their own "products", their scientific knowledge. When the philosophical heads achieved something, they didn't do it just for themselves, but to the benefit of the whole of community. For Schiller, the university were to be solely the home of the philosophical heads, a scientific institution expanding itself to all seekers of truth across national boundaries.

The idea of the university as research institution has gained its reputation mostly as what is called as the *Humboldtian ideal* of the University. It already had some of its role models in the thoughts of J.G. Fichte, F.W.J. Schelling and Friedrich Schleiermacher in the 18th century, but it was mostly in the thought of Wilhelm von Humboldt (1767–1835), the liberal German philosopher, government official and credited founder of the university in Berlin (1809) that the ideal of the university as *Bildung*, as culturation and as formation of the scientific mind got its breakthrough.

The "Humboldtian idea" emerged in Germany at the beginning of the 19th century and, in the ensuing years, was exported all over the world (Schwinges, 2001; Schalenberg, 2003). With its five pillars – (1) unity of teaching and research, (2) freedom of research and teaching, (3) protection of the university's function as a research establishment, (4) belief in the possibility of moral education through knowledge and (5) the union of university disciplines under the direction of philosophy – it became a powerful model of a research university, despite the fact that it has never been fully put into actual practice in any system of higher education (Ash, 1997, 2006a, 2006b). Moreover, even higher education systems without a Humboldtian tradition clung in different ways to the Humboldtian "myth", constantly reinventing its terms and broadening its scope.

The conceptual history of Bildung, a German idea for self-cultivation, has a strong connection to the idea of Humboldtian university (Bruford, 1975, pp. 1–29; Spranger, 1928; Kantasalmi, 1990). Both of these traditional views have been criticized for fostering the (re-)invention of a homogeneous tradition in response to resisting any tendencies towards globalized educational policy. Even today, Bildung and Humboldtian education seem ultimately to find their way to frequently emerging in the arena of political reform of higher education systems in Europe. As an inherent aspect to the idea of European university, the university has to attempt to resist its radical reforms, as this formally conservative attempt opens up the possibility for the university to ask about its form and function autonomous of any immediate contextualized political or societal problematic. However in terms of higher education policy in Europe, this has been seen as a decontextualized attempt to mystify and nationalize the idea of the university (Thomson, 2005b). It is still not that obvious however, to what extent this tendency is apparent, or that the rediscovery of the university in its traditional form would necessarily lead to it. Later in the 20th century, the "Humboldtian" aspect of the idea of the university got a new interpretation as a spiritual renewal of the ways of life that form and constitute the university itself, inspired by the thought of Martin Heidegger, and criticized by Jürgen Habermas and the contemporary Critical Theory.

IS SEEKING THE IDEALS OF BILDUNG AND UNIVERSITY NOTHING BUT 'SPIRITUAL MISSION'?

Alongside the development and expansion of universities from their medieval origins, there has been a search for the 'idea' or the 'meaning' of the university itself. At the beginning of the twentieth century, philosopher Martin Heidegger saw the university as a site for radical questioning, *Grundfrage*, of the facticity of one's own life. The vision of the university put forward in Heidegger's *Freiburg Address on the Assumption of the Rectorate* (1933), both attempts to situate the university as the site for radical questioning of selfhood, whilst also transcending the actuality of that questioning by giving the institution itself a spiritual mission as a *hohe Schule*. Heidegger's "mission", as we know, had a specific motivation, namely to educate German people under the regime of the Nazi party (Heidegger, 1993, p. 63; Thomson, 2005b, pp. 78–140). More recently, Jürgen Habermas (1987) has attempted to conceive of universities as historical public bodies which evolve within societies, and therefore do not all preserve the same "spiritual mission" of Heideggerian university, but can nonetheless be seen as part of a discernible "community of investigators". Habermas is adamant to critiquing Heidegger, which is an obvious thing to do. What can be seen to be problematic with both the Heideggerian and the Habermasian views however, is that they both attempt to grasp the nature of the university (or universities) prior to the subjectivity of the individuals that attend them. Both of the thinkers mandate their "design" of the university by supra-individual grounds, be it the spiritual mission the German people, *Volk*, or the intersubjective discourse

within the emancipatory "space of reasons". Both turn intra-subjective aspirations into universalizations. Heidegger's mission eventually perished, before it even fully sprang to life. But what about Habermas? Does he finally bring about an everlasting idea of the university as *Bildung*?

Phenomenologically, university attempts to explore the idea that it could not exist without the participation of unique individuals. Therefore, a thorough phenomenology of the university would have to account for the educational relationship between the institution and individuals in ways not simply expressed in experiential terms of encountering ideas, the world, or others. There are already existing interpretations of both Heidegger's *Grundfrage* and Habermas' idea of the university to address this relationship. Iain Thomson's (2001, 2005a, 2005b) insightful reading of Heidegger for example, suggests that there is more to the institution than just something essential and foundational: the *actual* education that takes place there and the people who participate in it. This means, that instead of a spiritual mission to save the university, there can be no complacency surrounding a "meaning" or "idea" of the university. The only way it can have meaning is by people creating and generating that meaning every day through teaching, learning and research, but always in a healthy critical relation with the historical tradition that tells how the institution ought to function and what the meaning might be for an unforeseeable future. Thus Heidegger's long-standing project of making the university a site for "*geistige*" renewal and radical questioning doesn't necessarily amount to the Humboldtian problematic, even if it grapples with the depths of historical and/or contemporary involvement with problematic ideals or ideologies. Radical questioning is the veritable basis for the selfhood of those in the university community. However, as we now historically know about Heidegger's attempt, it resulted in ultimately problematic political outcomes. However, there is no reason to assume *Grundfrage* itself as a problematic conservative reaction, nor should there automatically be radical reforms to reconcile a commitment to fundamental questioning (and the potentially hazardous outcomes this might result in) and the critique this Heideggerian thinking has been exposed to by Critical Theory.

The kind of radical reformation of higher education introduced by Heidegger has been criticized by another similar attempt towards transforming the university, namely that of Habermas's. Habermas has vocally attacked against Heidegger's politics, and his critical theory has brought a basis for a certain transformative idea of university (as "a public space of reasons"). This however has been found to an extent equally problematic. As Nikolas Kompridis points out, Habermas in his critical thinking is linked to modernity's relation to time to clarify the responsibility we must bear for the proportion of continuity and discontinuity in the forms of life we pass on. This stance towards the future not only places possibility ontologically higher than actuality, as Heidegger similarly notes, but it also places an almost unbearable sense of responsibility upon the present. If we are to respond authentically to our consciousness of historical time, we are compelled to take the ethical perspective of a historically accountable "future present" (Kompridis, 2006,

p. 15). We can recognize the past as the "prehistory of the present", to which the present is connected "as by chain of continual destiny" (ibid., p. 15). With this, we are to bear a special responsibility: we are the ones who must self-consciously renew and correct our forms of life, the ones who must repair what is broken, or break with what seems irreparable. We are the ones who must remake our languages and practices, and make something new out of something old. This contemporary critique and reformulation of the task of the critical theory makes a significant move back towards Heideggerian *Grundfrage* of the Being of the human being as the root of the essence of the university. In this sense, we can recognize the university as a site for radical questioning, as it is the responsibility of the university as a place for this questioning to enable us to self-consciously renew and correct our forms of academic life. Thus, Habermas has not moved far from Heidegger's "*geistige*" renewal of university as a place for thinking. But still the question lingers whether this notion of academic way of life as a place for thinking, be it metaphysically more sound, moves things towards the better or the worse.

Whether we like or dislike Humboldt's or Heidegger's nationalistic notions of *Bildung*, it may still be that they linger in the hallways of the university, at least in some watered down version. Nowadays we can find the notion of *Bildung* as a genuinely social phenomenon directly or indirectly articulated by prominent social-pragmatist philosophers. For example, John McDowell uses the German word *Bildung* to designate the process of having one's eyes opened to the space of reasons, namely to the world, by acquiring "a second nature", a notion introduced by Hegel. This acquiring is a matter of *socialization*, of someone being shaped by certain social relations (McDowell, 1996, pp. 84–88). On the grounds of Robert Brandom's work one could specify the character of these social relations that support *Bildung* as an eye-opening to the space of reasons: according to Brandom this process presupposes the recognition of the individual as a potentially competent player of the game of *giving and asking for reasons*, as a subject of discursive commitments (Brandom, 1994, pp. 183, 188, 496–497; cf. Stojanov, 2007). But isn't the assumption here that universities serve the purpose of transforming individuals, but without the reciprocal notion of individuals transforming universities? When considering the differences between higher education and schooling, it may be that the potential for individuals to transform as well as to be transformed is what defines the transition.

PROBLEMS AND CHALLENGES FOR UNIVERSITY IN THE LATE-MODERN PLURALITY, AND COMING BACK TO THE COMMUNITY OF THE SELVES

The Heideggerian ideal of the university came to its end in the midst of the Second World War. But fresh thoughts about the university didn't end there. It was not Habermas, however, who for the first time stressed the communicative aspect of the institution, namely the idea of the university as a community of the selves in its contemporary form. Karl Jaspers' pamphlet *The Idea of the University* (1961) was written at the end of Hitler's dictatorship and the defeat of Germany in the

war, after the worst outward and inner catastrophes had befallen the German universities. Jaspers was the first to call for rebuilding the German universities from their foundations. He offered a philosopher's search for the deepest roots of the Western university, and found them in the communicative aspect of it. For Jaspers, universities are the places in which the participants of those communities can engage in debates and discussions, namely intellectual cooperation in the emerging new "Schools of Thought". The idea of the university was built anew in a way that would be free from immediate subordination to political or economic aims, and would assess them critically.

In the first post-war era, higher education had a surge of growth, which resulted in larger academic class with still maintaining meaningful pools of academic freedom. It seems that higher education has changed much further and in multiple ways since those days. Now, society calls in its debt and seeks to bring the academic class more into the service of societal ends, rising tensions to preserve this academic freedom. At the moment, the term "higher education" stands for a species of educational experience distinctive and apart from the rest of the educational system, which promotes increasing feelings of unease among scholars (cf. Barnett, 1994, 2000, 2009, 2011). Higher education is increasingly being incorporated to the mainstream of society. It can be argued that higher education, with its fragmenting forms of thought, of cognitive style and of intellectual orientation, is today a *postmodern* institution, seemingly intent on abandoning any pretense of holding onto sure foundations of right thinking (cf. Altbach et al., 2010). However, higher education is actually changing, so some argue, from being a premodern to a modern institution (Barnett, 1994, p. 3). If the characteristic flavor of higher education today is one of modernity, then how is this compatible with the increasingly obvious institutional criticism of higher education in favor of diverse ubiquitous online and shared educational experiences, critique of individual teacher and researcher identities and knowledges in favor of collective, collaborative and shared knowledge construction? The shift seems to be from marginality of the society to incorporation of the higher education to the social mainstream, with concerns over planning, quantification, accounting of revenues, outcomes, performance review, productive capacity and societal contribution. All these are symptoms of modernity, *not* of postmodernity (Barnett, 1994, p. 4; emphasis mine). At the same time, the university seems less and less of a community of academic "selves" while the basic unit of research, with its own will and aims, is a large group or rather a cluster of research groups, or increasingly even an international consortium.

Pessimistically, Adorno and Horkheimer in their *Dialectic of Enlightenment* (1987) saw the new order of modernity as one of impoverished conceptions of human being, dominated by instrumental rationality. Higher education is now taking on some of that character (Barnett, 1994, p. 4). No get-out seem possible in the total embrace of this technological ordering which is penetrated deeply not only into systems and institutions but also into ways of thinking and feeling. Instrumental higher education reflects a technological way of being as modern *onto-theology*,

as Martin Heidegger would put it, as serving some ultimate grounding entity (cf. Heidegger, 1969, pp. 70–71; Thomson, 2005b, pp. 11–23). University's way of being is that of subordination to the higher powers of economy and technology, and being in itself nothing more but an instrument to their purpose. Subsequently, all this analysis has been taken up by Jürgen Habermas who has striven to locate a foundation for a more optimistic view of human development, and many of his ideas inform the analysis and the concluding propositions offered here.

From the ideas introduced here, what is to be learned about what makes the university *the* university? There is a transformative potential to it, expresses Habermas (1987, 45). But what is it that distinguishes this potential from the potential of any other forms of schooling? Throughout the intellectual history of the West, but perhaps most vocally in the late modern era, the university has been perceived as such complex institution that the task of thinking of the essence or the idea of the university has been deemed a futile task (cf. Barnett, 2000). In his quite recent article, *The Very Idea of a University: Aristotle, Newman and Us* (2009), Alasdair MacIntyre stands against these non-essentialistic tendencies. As long as we don't think anymore what the university is, we no longer think what the education given in such an institution aims for. MacIntyre is worried about the present situation, in which the people graduating from the universities and ending up with responsible duties in the society don't know what they're doing. In this situation, the university does not do anything especially academic, anything that would ensure that its special task, whatever that is pedagogically, is fulfilled. The results of this are worldwide economic crises and desperate wars and frozen conflicts.

MacIntyre comes close to the idea of the university present in the humboldtian system, in Hegel, and interestingly in the Finnish national philosopher Johan Vilhelm Snellman's thought, namely the idea of the *community of the civilized, rationally communicative selves* (Himanka, 2009, 2012, emphasis mine). MacIntyre, Hegel, and Habermas all point out the act of reciprocity in this community, but Snellman also points out the need and permissibility of individual and communal reflection. This reflection means the always active inquiry into the topic of this article, namely the essence, or idea of the university and the dynamically changing aims this idea and the current historical condition brings about. This continuous self-reflecting activity of the individuals assumes and requires *a priori* maturity of those individuals. Only then can we speak of any continuous academic self-cultivation of the university as self-cultivation of the whole academic community, and only then the attainable maturity of the community can reciprocally transform the individuals attending it. There is however an inherent paradox to this definition, which in wrong societal conditions could lead to elitism or even worse. University as the community of the selves cultivating those selves requires the existence of already cultivated selves in the first place. Martha Nussbaum has recently dealt with the worrying development of the contemporary university in this regard (cf. Nussbaum, 2010). Nussbaum proposes a rather simple solution to the problem: we should hold on and go back to the Anglophone liberal arts model of the university which had its peak in the United

States in 1970's, in order to promote social justice and maturity of individuals which university is able to do by definition. The liberal art's model promotes quite well the Kantian sense of being able to think and act according to the demands of one's own rationality, or in other words the ability to "give and ask for reasons", or in the Aristotelian sense to being able to respond to the demands of a situation accordingly. Such progression is already at play in the US and the UK as Modern Liberal Arts programs. As Nussbaum points out, such programs are not alien in the history of the State funded universities or Ivy League university curricula. Could the model still work as a contemporary ideal for the university today?

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SECTION II

SCHOOL, LEARNING AND TEACHING

School and schooling have many functions: to develop the ability to philosophize, to promote the moral foundations of democracy and create a transformative community of selves, as described in the previous chapters. These main functions of school, then, are intertwined with what is commonly regarded as the central function of education: learning. All those processes which school should fulfill take place via learning. Schools further learning and schools are often called places for learning – or, more recently, *learning environments*. The way schools promote learning is, of course, primarily through teaching. A teachers' work in school is to solicit and guide the pupils' study, to bring about learning in pupils. The work of the teacher is guided and controlled by a curriculum, i.e. a more or less explicit document where the aims of school – or the learning goals – are set down with suggested or required methods for teaching and studying.

In this section, a few central themes about learning and teaching are taken up. The story of the section can be summarized shortly as follows. In recent couple of decades a new academic and administrative discourse has risen which can be called the *discourse of learning* or *new language of learning* (see Peltonen in this book). Although this ubiquitous discourse is quite multifaceted and not at all uniform, its central common appraisal is to see all questions and phenomena of education and schooling solely through the concept of learning – and thus neglects the traditional concepts of education: Bildung, curriculum and especially teaching. This theoretical-practical movement can be at least partly seen as a pendulum swing in the Kantian paradox of pedagogy from the "coercion" and teaching pole to the "freedom" and pupil pole. One reason for this desire to conceal the role of teachers can be traced to often very contradictory and inordinate expectations for teachers and teaching (see Tröhler in this book). There are historical explanations for this contradictory condition of teachers. With the rapid social changes accompanying modernization, education began to be seen as the only possible salvation for future generations from possible crisis and ruin – with the teacher as the students' only savior. At the same time, teachers as normal, imperfectly educated humans can be regarded as unreliable actors and thus their work must be guided and supported by explicit methods and administrative systems, including accountability and even eventual mechanization of the teacher's work.

The last chapter of this section returns to the concept of learning, approaching it from the traditional point of view of human growth, or Bildung. If we wish that school fulfill its previously-assumed functions and its core aim, learning, it cannot

be seen in the one-sided and technical manner as conceived in the new language of learning. Instead, it must be seen as a multi-layered phenomenon containing emotional and moral dimensions. This kind of learning can not be achieved without careful planning and intervention from curriculum and teachers. On the other hand, it can not be mechanized. Thus expectations for teachers will remain high but, nonetheless, mundane.

JOUNI PELTONEN

5. SCHOOLS AND THE NEW LANGUAGE OF LEARNING

A Critical Perspective

INTRODUCTION

The past 25 years have seen a striking rise in the concept of learning in the fields of education and educational research. As Biesta (e.g. 2005, p. 55) points out, the "new language of learning" or the "discourse of learning" (Contu et al., 2003, p. 931) has become dominant in educational discourse. Teaching is often redefined as facilitating learning and education is routinely described as the provision of learning experiences. Subsequently, the last few decades have witnessed the decline of the traditional concepts of "teaching", "education", "pedagogy", "Erziehung", and "Bildung". This development has been especially visible in schools or other institutions of formal education, now redefined by the new language of learning simply as "learning environments", "learning communities", or "learning organisations" (see e.g. Wilson, 1996; Hargreaves, 2003). Terms such as "learning society", "learning community", and "learning organisation" also appear in policy and strategy papers of the European Union and of many countries in and beyond the European community (Jarvis, 2002, p. vii). Against this background, it is not surprising to encounter theorists and researchers proposing that the new, constructivist or sociocultural theories of learning *alone* can function as a foundation for creating, evaluating, and reforming both the process of education, and schools and other institutions of education (see e.g. Pépin, 1998).

While it must be admitted that the new theories of learning have had a remarkably positive impact on some educational practices in various institutions of education (Biesta, 2006, p. 31), there has been a limited critical discussion of the new theories of learning and the new language of learning to date. Therefore, I seek to examine and advance two critical propositions in my article. The first is that the new theories and the new language of learning do not constitute a sufficient basis for the understanding, critique, and improvement of the process of education. The fundamental question here is whether all the major aspects, and at the same time, the little subtleties and nuances of the process of education taking place in educational institutions, can properly be understood using the language and framework provided by the new theories of learning. I argue that this is not the case. Instead, the new language of learning tends to oversimplify the process of education and, at the

P. Siljander et al. (Eds.), Schools in Transition, 67–77.

same time, leaves some of the key features of it undiscovered or, in some cases, misrepresented or misconstrued. Since the prevailing understanding of the process of education is generally an important factor affecting the creation, evaluation, and reformation of schools and other educational institutions, this shortcoming of the new language of learning might have consequences for the design and reforms of educational institutions, too.

The second critical proposition I seek to advance has to do with the institutional nature of schools and the role of schools and other institutes of education in society. Here, and parallel to the argument I shall provide for my first proposition, I wish to argue that the new language of learning alone is not a sufficient basis in our attempt to understand, explain, and reform schools as institutions of modern/postmodern society. Instead, it seems plausible that this attempt will require, in addition to learning theories and the new language of learning, traditional curriculum theories and theories of institutions of education drawing on the stock if ideas provided by the rich and multifaceted tradition of western educational and pedagogical thinking.

I will proceed by providing first a brief discussion of the main themes of the new theories of learning, the constructivist and the sociocultural orientation of learning research. In the same section, I will also explore the typical applications of the new theories of learning to schools and education in general. Next, I will discuss the problems arising when the new language of learning is used to describe and conceptualise the nature of the process of education. Finally, I will assess the suitability of the new language of learning for efforts to understand the nature of schools and other educational institutions.

THE NEW THEORIES OF LEARNING AND THEIR IMPACT AND APPLICATIONS ON EDUCATION

Although there is presently no canonical doctrine known as “new theories of learning”, this term coined by Biesta (2005, 2006) seems to make sense in so far as it refers to constructivist and sociocultural theories of learning, often subsumed under generic or undifferentiated “constructivism”. Emerging during the 20th century and gradually moving to the fore among educational researchers and theorists, constructivist and sociocultural theories share the common core belief that human knowledge is constructed rather than discovered and that learning is a process of constructing meaning and making sense of experience (see e.g. Merriam and Caffarella, 1999, p. 260).

As Gergen (1995, p. 27) points out, it is possible to locate both similarities as well as strong disjunctions between constructivism and social constructionism, the two major approaches of the new theories of learning. One of the early key studies comparing social constructionism and constructivism from the viewpoint of education and educational institutions is that of Shotter (1995, pp. 41–42), in which eight affinities of substantial significance are presented. For the purposes of this article, they can be presented as follows.

Creative, formative, or self-constructive activities of a reflexive kind should be the focus of studies in schools and other institutes of education, and creative processes and "making" are more important than "finding" or the processes of discovery.

- It makes no sense to talk about our knowledge of an absolute reality, since human knowledge is always a construct. Thus the character of any "thing" or "activity" beyond or outside the constructionist or constructivist activities remains unknown to us, except in relation to the very activities from within which all our knowing takes place.
- Notions such as coherence, viability, fruitfulness, or adequacy should be appealed to in evaluating the worth of our proposals.
- Instead of causes and effects, we should be concerned with meanings and significances.
- The question of the relationship between theory and practice is of the utmost importance. Constructivist or social constructivist views hold that practice is not learned by first learning theory, and theories are not in any case accurate representations of a state of affairs. Therefore, the entire framework of teaching, communicating, or presenting knowledge has to be reformulated.

It is also useful to consider the contrasts with these two closely related orientations. Following Gergen (1995, p. 27), I suggest that perhaps even the major difference between these two approaches is the primary emphasis. For (radical or individual) constructivism, it is on the mental processes of the individuals and the way in which they construct knowledge of world from within. In other words, the different variations of the individualist constructivist view understand learning to be an intrinsically personal process whereby "meaning is made by the individual and is dependent upon the individual's previous and current knowledge structure" (Merriam & Caffarella, 1999, p. 261) and as a result can be considered an "internal cognitive activity" (ibid., p. 261).

The proponents of social constructivist orientation, on the other hand, typically apply the metaphor of culturally and historically contextualised social interaction or dialogue to describe the process in which learning is constructed and meaning is made. Finally, it should be noted that constructivism and social constructionism are not singular theories, but families of related theories that are not always seen as compatible (Efran et al., 2014, p. 1). Even within the perspectives of radical/cognitive/individual constructivism and social constructionism, there are plenty of definitions and views regarding the centrality and the specific role of the individual cognitive structuring process and the social and cultural context of learning.

Regardless of their affinities and perceived incompatibilities, social constructionism and constructivism have had a huge impact on instruction and curricula, institutes of education, and educational research in general. The educational applications of new theories of learning actually cover a broad range of scales. At the small scale end of the continuum, one can find a plethora of applications of social constructionist or constructivist orientation, such as those commonly found in schools through

the widespread use of cooperative and collaborative teaching and instructional strategies, collective activity, and in-class debates (e.g. Jones & Brader-Adaje, 2002, p. 6). Terhart (2003), drawing on the studies of Wolff (1994), Dubs (1995), and Meixner (1997), has presented a detailed account of what class instruction based on constructivist principles would actually look like. For the purposes of this article, it can be shortened to include the following examples:

- Contents to be learned should not be fixed and organised beforehand, for then they cannot be connected with the subjective experience and knowledge that the students will bring with them. Only the core content of the curriculum can be fixed or organised beforehand.
- Learning environments (instructional materials, classrooms, media, and other aids, and, ultimately, the school itself as an organisation) have to be structured in such a way that they are authentic and complex in the sense of real-world experiences.
- The learning of how to learn, which includes the development of individual thinking and metacognitive tools, as well as generally becoming aware of one's own thinking and learning, as well as its processes, is one of the highest-level characteristics and goals of constructivist learning. Mutatis mutandis, the same can be said of the social and cultural processes of learning.
- Instruction should look to complex problem domains that are close to real life and have to be dealt with holistically.
- Learning should be understood as an active, reality-shaping, and identity-shaping process, during which individually existing knowledge and skills are adapted and personalised through the individual's own new experiences and interaction with peers.
- In this kind of self-regulated learning – in contrast to traditional pedagogy – mistakes play an important role. Discussions in small groups are only meaningful when errors occur and when they are then discussed and corrected.
- Feelings, meaning dealing with joys and anxiety, as well as personal identification (with learning contents), are important.
- The learner should be brought to the point where she builds her knowledge autonomously from the context and interactions and where she learns from her own mistakes (see Terhart, 2003, pp. 24–36).

At the grand scale end, one can find more or less foundationalist attempts to base everything a concept of education might encompass on the principles and fundamental ideas of the new theories of learning. It is the applications of the grand scale end of the continuum that are of interest from the viewpoint of the argument I am trying develop here. There are numerous examples of authors for whom, as expressed by Matthew (2012, p. 12), "constructivism is even larger than a theory of learning, education and science; it is a worldview or *weltanschauung"*. In her often cited declaration, Yvon Pépin, for example, has stated that constructivism "offers a global perspective on the meaning of the human adventure, on the way

human beings impart meaning to their whole existence in order to survive and adapt" (Pépin, 1998, p. 174). In the same vein, Tharp and Gallimore (1988, pp. 8–9) propose that the interactionist-constructivist views about human learning, interaction, and development that they refer to as "neo-Vygotskianism" will not only have profound impacts on teaching, schooling, and education, but will actually provide "the basis for a theory of schooling and teaching" (ibid., p. 6).

A considerable part of the available literature on how the new theories of learning should be applied to education deals with the question of designing and developing institutions of education. Hargreaves (2003, p. 29), for example, argues that teachers should make their schools into learning organisations where capacities to learn and structures that support learning and respond constructively to change are widespread among adults as well as children. Similarly, Tokoro (2003) thinks that advances in information and communication technology have finally given us ubiquitous access to information, forcing western societies to transform schools into individualised, learner-centred learning institutions that should be designed based on the recent results achieved by the cognitive sciences and neurosciences.

In addition to these efforts of individual authors to base the process of education and institutions of education on learning research, there have also been collective endeavours aiming to realise the same objective. In 1990, Charles Spielberger, president of the American Psychological Association (APA), urged members of the APA to take a more visible role in the reform of America's schools. Thus, the APA appointed a task force of leading experts in psychology and education, whose charge was to develop a set of principles based on the field's understanding of what learning is and what promotes optimal human learning (Murphy & Alexander, 2006, p. 14).

Thus, between 1990 and 1996, a team of psychologists, learning research experts, and educational researchers formulated an initial set of 12 psychological principles that they hoped would guide the redesign and transformation of American schools (see e.g. Alexander & Murphy, 1998). Later on, the 12 original principles were revised and expanded by another APA task force, major scientific societies, psychological organisations, and professional educational associations (Murphy & Alexander, 2006, p. 14). A detailed examination of these principles is beyond the scope of this article, but it is evident that they draw heavily on the orientations of social constructionism and constructivism. For example, learning is defined as a natural process of discovery through which the learners seek meaningful knowledge and construct and link new information to old. At the same time, the principles emphasise that learning is facilitated by social interactions in diverse settings (see e.g. Murphy & Alexander, 2006).

Overall, the discussion above highlights the fact that, for several authors, the new theories of learning seem to provide the entire and sole basis that the processes of education going on in institutes of education, and the institutions of education themselves, should be built on or modelled after. In his critical analysis of constructivism in science education, Matthews summarises this with the following words:

> Constructivism is undoubtedly a major theoretical influence… In its postmodernist and deconstructionist form, it is a significant influence in literary, artistic, history, and religious education. Constructivism seemingly fits in with, and supports, a range of multicultural, feminist, and broadly reformist programmes in education. Although constructivism began as a theory of learning, it has … expanded its dominion, becoming a theory of teaching, a theory of education, a theory of the origin of ideas, and a theory of both personal knowledge and scientific knowledge… Constructivism has become education's version of the 'grand unified theory,' plus a bit more. (Matthews, 2002, p. 121)

THE PROCESS OF EDUCATION AND THE NEW LANGUAGE OF LEARNING

Previous remarks should suffice to show that, as Biesta (2006, pp. 15–17) has argued, the concept of learning and the related constructivist concepts discussed above have become almost omnipresent in contemporary educational discourse. They are the favourite concepts of national and international policy-makers and, thus, policy documents. The wide range of constructivist concerns can also be seen in the headings of articles and the names of books, where we are informed of "A constructivist view of learning", "A constructivist view of teaching", "A view of science", "A constructivist view of curriculum", and "A constructivist view of curriculum development" (Matthews, 2002, p. 123), as well as "Constructivist learning environments" (e.g. Wilson, 1996).

There might be, however, a danger or at least problems for educational researchers, policy-makers, and practitioners of education drawing too heavily on the new language of learning and the new theories of learning. As suggested by Biesta (2005, 2006), one of the main problems here is that the new language of learning seems to misconstrue the roles of the educational professional and the role and position of the learner in the process of education. In his analysis of the new language of learning, Biesta (2006, p. 22) found that it has made it possible to think of education as an economic transaction in which (a) the learners are the consumers with their needs;(b) the teacher or the educator, or the institute of education, is seen as the provider, who is there to meet the needs of the learners; and ultimately, (c) education itself becomes nothing but a commodity, something delivered by the teachers or educational institutions and consumed by the learners.

Why is this a problem? As Biesta (2006, p. 20) notes, in one respect it makes sense to look at the process of education in these terms. At least, it might allow us to redress the imbalances of a provider-led and inflexible education. To think of students as learners and learners as customers who want value for their money can, in this sense, be helpful in achieving equal opportunities of education for all (ibid., p. 20). This might then decrease the risk of creating a divided strata of development, separating those who cater for a knowledge society from those who merely cater to it (Hargreaves, 2003, p. 205). In the same vein, one should welcome constructivist

or social constructionist critiques of authoritarian forms of education focusing solely on the activities of the teacher and conceiving of education solely as a form of control.

The main problem with the new language of learning, however, is that it is insufficient for expressing what finally and fundamentally matters in education. Regarding the roles of the student and the teacher, Biesta (2006, p. 22), for example, points out that the major reason for students to engage in education is precisely to find out what it is that they actually need or desire. Furthermore, teachers and other professionals in education often have a crucial role to play in the process of need definition. This, however, is something that really cannot be conceptualised or expressed using just the new language of learning or the concepts provided by the new theories of learning.

Biesta (2015, pp. 76–77), in his recent discussion of good education and teacher professionalism, has also developed a slightly different line of argumentation to question the hegemony of language of learning in education. He sees the problem with the language of learning – not only the language itself but also the ways in which it is used and contextualised in educational research, policy, and practice – in the fact that it tends to prevent people from asking the key educational questions concerning content, purpose, and the relationships between the process of education and institutions of education. Instead, the new language of learning seems to steer researchers, policy-makers, and practitioners to talk in abstract terms about promoting learning, supporting learning, facilitating learning, about learning outcomes and student learning; and too quickly forget to specify and discuss the "of what" and the "for what" of the learning (ibid., p. 77). For schools and other institutions of education, this tendency is, of course, problematic, since the creation, evaluation, and reformation of educational institutions has to be centrally concerned with the purpose and aims of education.

EDUCATIONAL INSTITUTIONS AND THE NEW LANGUAGE OF LEARNING

As mentioned above, it is evident that the prevailing way of construing the process of education has an impact on the characteristics of schools and other institutes of education. At the same time, however, it is also evident that the conceptions and theories of the process of education upheld and proposed, for example, by policy-makers, learning researchers, and theorists and philosophers of education, do not completely determine the nature and the functions of educational institutions. Instead, relationships between education and society, state, and other social institutions are infinitely complex and constantly changing. Schools and other educational institutions both create sociocultural order and respond to the ordering of their environments within society and culture (Erickson, 1997, p. 356). It must also be kept in mind that schools and other educational institutions constitute a relatively recent occurrence in human history, and so the contradiction and incoherence in school practice is not surprising (ibid., p. 359).

Considering the complexity of both the educational institutions and the larger sociocultural systems they are a part of, it is understandable that educational theorists are divided on the question of whether schools and other educational institutions really are capable of sponsoring and fostering significant social and cultural change (Skilbeck, 1997, p. 498). Furthermore, the complex structure of educational institutions and their surroundings offers many different paths for modifications and revisions of schools and schooling (Fend, 2008, p. 189).

This complexity is taken as the starting point in Benner's (1991) discussion of the tasks and horizons of a theory of educational institutions, as well as in his study of the interconnections between school didactics, curriculum theory, and the theory of school as an institution (Schultheorie) (see Benner, 1995). It is beyond the scope of this article to provide a detailed description of Benner's account, but some remarks are necessary to ground my argument here. Benner (1991, pp. 170–173) starts with the notion that, on the one hand, the facticity of the existing complex system of educational institutions and the multiple sociocultural processes of differentiation and structuration behind the genesis of contemporary schools and other institutes of education must be the starting point of reflection. On the other hand, a proper theory of educational institutions must not limit itself in such a way that it should only aim for a description and explanation of existing educational institutions and their connections with other subsystems of society. Instead, there is a fundamental need for the theory of educational institutions to be critical and reform-oriented.

As already implied above, to properly voice this fundamentally critical tone, a theory of educational institutions needs to apply multiple lines of thought, utilise different views and methods of reflection and research, and create fusions of facts, models, and theories produced by the various different branches of educational research and theorising. To be more specific, it is the task of the theory of educational institutions, for example, to initiate a dialogue between the didactic recommendations of classroom-level reforms suggested by the new theories of learning and the new ways of apprehending a curriculum proposed by curriculum theorists, and finally to reflect the emerging synthesis from the viewpoint of the fundamental principles of the process of education (see Benner, 1995, pp. 48–51)

A common problem with various initiatives and demands by the proponents of the new theories of learning to reform or completely reshape the institutions of education is the failure to properly address the complexity discussed above. As Cobb has pointed out, in education the case for constructivism tends often to be argued from nature and first principles: "if reality and the human mind are thus constituted, here is what a classroom (or a school, J.P.) should look like" (Cobb, 2006, p. 85).

Given the profoundly complex nature of educational institutions and their elaborate connections with other institutes and subsystems of society, basing the reforms or revisions of schools and other institutions just on the principles suggested by the new theories of learning is, of course, something that one may be tempted to call a pauperization of educational discourse. By framing the creation, development, and revision of educational institutions as a task that will only require a proper

(constructivist) understanding of human learning, the new language of learning limits and hampers the dialogue requested by Benner as a necessary condition for a proper theory of educational institutions. Furthermore, institutional education can be seen as an intentional and interactive process through which individuals become encultured into the complex web of human competence and the social networks constituting societies (Uljens, 1999, p. 2). If this is the case, an adequate theory of educational institutions, as well as any attempt to reform educational institutions, simply cannot restrict itself to operate only with the language provided by the new theories of learning. Instead, and as suggested by Biesta (2005, p. 64), we may need, in addition to learning theories and the new language of learning, a new language of education, or at least a revitalised version of the traditional discourse of education.

DISCUSSION

During the last three decades, educational research and educational practice have witnessed a decline in traditional concepts of educational theories, and the emergence and, ultimately, the triumph of the new language of learning. Despite some obvious positive effects provided by this shift of discourse, this has led to some fundamental problems for educational research and the practice of education. Thus, I have argued, above, against attempts to reduce the discourse or language of education only to the language provided by the new theories of learning, mainly the constructivist and social constructionist approaches of learning research.

In addition to serving an expressive function, the language of education serves an important constructive function. It determines, at a very fundamental level, the way we construct the elements and the totality of the process of education. Since the institutions of education are partly shaped by our conceptions, models, and theories of the process of education, the language preferred by researchers, policy-makers, administrators, and teachers also determines the nature of schools and other institutions of education. One of the major problems, if not the major problem, associated with the new language of learning is that it oversimplifies and, to some extent, misconstrues the nature of the process of education: when the roles of teachers and students, the intentions of those engaged in education, and the entire process of education are framed using the terms provided by the new language of learning, the process of education appears to be a type of economic transaction. This, ultimately, may prevent people from asking for and seeking an answer to fundamentally important questions about the aims and purpose of schools and education in general.

My second argument against the hegemony of the new language of learning has to do with the complex nature of schools and other institutes of education. Several authors, starting from very different sets of premises, have argued that any adequate theory of schools and other educational institutions requires a dialogue and a synthesis of the theories and lines of thinking provided by different branches of educational research and educational theory. To use only the framework and the ideas provided by the new theories of learning as a starting point in designing and

reforming educational institutions is to severely limit or even pauperize the horizon of reforms or revisions. An interesting question for further research here would emerge from the notion put forth, for example, by Griffin and Brownhill (2002, p. 64): in the educational sphere, the notions of self-directed learning and related notions seem to have a tendency to de-institutionalise the process of education. Is this really the case, or in other words, do the new theories of learning, coupled with the notions of the information society, really abolish the need for institutionalised processes of education?

Finally, it should be noted that the arguments I have made against the new language of learning and its effects on educational discourse do not imply that the conceptual framework and principles of the new theories of learning should always be rejected. On the contrary, they constitute one major line of thought and provide a set of tools to be utilised both in the analysis of the process of education and in the study of educational institutions. At the same time, one must, however, acknowledge that the new language of learning cannot claim an all-encompassing position or universality in the discourse of education.

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DANIEL TRÖHLER

6. THE PARADOX OF BEING A TEACHER

Institutionalized Relevance and Organized Mistrust[1]

At least the Western world is thoroughly educationalized – that is, it is a world in which not only social problems are constantly assigned to education, but a world that defines its very own present and future in an educational language. Accordingly, all sorts of people and interest groups engage in participating in the educational business by highlighting alleged deficits in the schools and by proclaiming pertinent solutions to these problems. The educational realm sometimes resembles a colorful chorus composed of alerters, barkers, prophets, and also cynics, with altogether more cacophony than euphony. However, some of these voices have recipes that dominate at times, whereas some other voices represent recessive modes of arguments.

As a rule, these know-it-alls are not professionals – that is, they are not the central actors in the educational field, the professionals, but rather people 'outside' of it. Being 'outsiders' does not make these important agents feel bad, as may be demonstrated by the example of Walter H. Heller, the economic advisor to the president of the United States and the keynote speaker at the very first OECD conference on education in 1961 in Washington, D.C.: Amid the Cold War Sputnik shock, he claimed the importance of education: "May I say that, in this context, the fight for education is too important to be left solely to the educators" (OECD, 1961, p. 35). Another fine example may be seen in the vice-admiral of the U.S. Navy, Hyman G. Rickover, and also in his counterpart, the Soviet Navy admiral Aksel Ivanovich Berg, who, in the wake of Sputnik, both engaged in debates on educational reforms. Or, to take a more current example, in the OECD Director for Education and Skills, the physicist, mathematician, and statistician Andreas Schleicher, or in Microsoft founder Bill Gates, who together with his wife Melinda wants "to support innovation that can improve U.S. K-12 public schools and ensure that students graduate from high school ready to succeed in college" ("What we do: College-Ready Education Strategy Overview," n.d.).

These initiatives from 'external' influences aiming to reform school have often caused specific reactions on the part of the actors 'in' the field, the teachers, and those people in the educational sciences who understand themselves to be the attorneys either of the teachers or of the educational field (or of both). A particular striking example is the German academic discussion with its emphasis on a specific idea – the ideal of educational autonomy as the asserted education's 'freedom' from

P. Siljander et al. (Eds.), Schools in Transition, 79–95.

social, economic, and political contexts. The idea of educational autonomy had been advocated when Germany was forced to turn into a democratic state during the Weimar Republic. Wilhelm Flitner for instance (1928/1989) – one of the Mandarins of the German educational theory in the 20th century –, wrote that educators have to ignore both political plurality and education towards educational plurality and that instead they should look exclusively to a higher instance for orientation: the true Community (p. 244). In Flitner's understanding, this was the true *Volk*, the invisible Church, having a place in the inward spiritual world of the individual Person. It is in this, Flitner continues, that the autonomy of education lies when we examine the societal dependencies (p. 244). Flitner does not negate the necessity of tension in political life; he insists that education has some intrinsic laws that must not be denied, for that would mean abandoning educational responsibility (p. 248). Politics is external – meaning that it is controversy and plurality – and its limits lie where the inner freedom of the duty of education begins (p. 252).

Even after the Second World War, the idea of educational autonomy was defended, often being traced back – true *Volk* had been abandoned – to the alleged existence of a "fundamental educational idea" (Flitner, 1950/1974, p. 9; see also Benner, 1987, p. 9) that may have theological roots, as Flitner argued, may be dependent on philosophical trends and be framed by social expectations; nevertheless this idea "has its autonomy" (Flitner, 1950/1974, p. 9) and differs therefore substantially from other ideas, and that bears its value and dignity in itself (see also Tenorth, 2004).

Ennobled by this idea of the autonomy of education, the actors 'in' the field often react with irritation to reforms initiated by actors 'outside' the field. Whereas teachers may strike or, more efficiently, ignore reforms to a large degree, educational scientists may be outraged by reform initiatives that contradict the dignity of educational autonomy. Again, the German discussion may help to illustrate this. When PISA was actually launched, it was immediately seen in the educational sciences as an instrument of economy, as a "value-for-money ideology" (Frühwald, 2004, p. 42) that would conquer the educational field, that intended to incapacitate humans by training them as obedient *homines oeconomici* (Krauz, 2007), extinguishing the epitome of the educational autonomy, *Bildung*, and its individual bearer, the *Persönlichkeit* (Herrmann, 2007, p. 172). A similar reaction can be found 40 years earlier in the context of the foundations of PISA (Tröhler, 2013a), namely, during the educationalization of the Cold War, when comparative testing was being introduced to the American schools and the unionized American school administrators were protesting vehemently (American Association of School Administrators, 1966).

It is more than evident that there is an obvious contradiction and tension between the increasing importance of education in an educationalized world on the one side, and the claim of educational autonomy (or related ideas) on the other. Living in an educationalized world precisely means that education is assigned to solve social problems and the coming challenges of a developing society, and not educational problems. When around 1980 the Korean automobile industry entered the U.S. American market, and Detroit – the indigenous car industry – collapsed,

President Ronald Regan erected a *National Commission on Excellence in Education*, identifying the problems of the automobile industry ultimately as problems of the education system of the United States (National Commission on Excellence in Education, 1983). In other words, at least as well as we may want to talk about the economization of education, we are also entitled to talk about the educationalization of the economy, of the Cold War, and even of the overall project of the nation-states, which in the 19th century were all erecting their school systems for the future citizens to be fabricated.

People have always been educated, and intellectuals have often reflected on education. But the phenomenon of assigning almost any conceivable problem to education arose only around 1800 and was a fundamental cultural shift in the West. This shift, like any other fundamental cultural shift, created its own stars and heroes, who did not invent this shift but reinforced it due to their persuasion and charisma. In the present case, that star was the Swiss Johann Heinrich Pestalozzi (Tröhler, 2013b). Ever since this cultural shift of the educationalization of the world started (and we are still far from emancipating ourselves from it), one occupational group has been particularly promoted. But up until the end of the 18th century, members of this group were not systematically trained, if at all, they usually stood under the control of local priests or pastors and seldom did they earn enough money, therefore being forced to additionally engage in farming or to serve as sextons or cantors in the local churches: We are talking here about teachers. With the educationalization of the world, however, teacher education was first spreading in the non-academic school environments, and later on, gradually expanding, reached the universities. This collective training or education career, naturally, was not met without frowns, critical voices, and even intellectual sarcasm (Labaree, 2004). Nonetheless, the more educationalized the world grew, the more elaborate and sophisticated teacher education became, for teachers were defined as crucial actors to implement the educational expectations of individuals, societies, and different organizations.

The impressive collective career of the teachers has led educational scientists to claim that the vocation of a teacher is in fact not only a vocation, but a profession, similar to the profession of a lawyer, a physicist, or a priest, who have been trained at the universities (and at the traditional university faculties) since the Early Modern Period. The purpose of these professions was seen as in supplying individuals (or groups) with advice or guidance, be it in cases of (in)justice, health/disease, inward peace/despair. Even though a carefree life of the professionals was more or less guaranteed, their ‘business’ was always seen as fundamentally different from the one like trade, craft, or administration, and their pertinent pursuit as situated in the suburbs of the ‘normal’ economy, being to some extent independent, yet still essential for society. It goes without saying that the fields these professions represent – the legal, the medical, and the religious – are envisioned autonomous, not exposed to the demands of economy, state, or military forces. It is in the above-mentioned context of the social role of professions that the autonomy of education was claimed.

There is no doubt that the expectations towards teachers are enormous, and in some countries the wages of teachers represent these expectations, such as in Luxembourg or in Switzerland, where the salaries are considerable, although in other places the salaries are average, like in Portugal or Finland, below average, like in France, or even very modest, like in Hungary or Poland. However, at the same time, teachers are constantly mistrusted to meet these expectations. The paradox here, then, lies in a situation when the teachers are continuously being better educated – that is, professionalized, exposed to advanced training programs – yet, despite this exponential growth, they seem to enjoy less trust. They share the late fate of other professions, like medical doctors (Conrad, 2007, pp. 14ff.), when their expertise as professionals decreased in importance. What is being said about medicine could be identically applied to education: "Medicine," Porter (1995, p. 91) reports, "meant powerful professionals whose expert judgment was rarely questioned" until the mid-20th century. However, by the mid-1960s, professional judgment was increasingly seen as subjective: "We must show that the exercise of professional judgment and the desire for objectivity are complementary propositions" (as quoted in Porter, 1995, p. 92). Doctors were (no longer) perceived as monarchs of their practices but as "firm individualists" with little disposition to merge "into a large-scale research program" (p. 205). And indeed, the development in the medical sector was crucial for the development in the education field. Professionals are being seen as too individual and fallible in contrast to evidence provided by empirical intervention studies – based on the model of clinical research – to generate statistically verified (evidence-based) knowledge (Tröhler, 2015).

However, this paradox has a long tradition in which teachers were and are assigned a fundamental mission – to fabricate the virtuous, industrious, prudent, and loyal citizen – but at the same time are largely mistrusted. I will demonstrate this thesis in five steps by focusing largely on two – maybe for different reasons – outstanding figures in the history of education, Johann Heinrich Pestalozzi and Burrhus F. Skinner. First, the issue of the importance of the good teacher is demonstrated, indicating simultaneity of its mission and mistrust (1). Then, the very different historical, institutional, and intellectual contexts of Pestalozzi and Skinner serve to indicate how similar educational settings were thought to meet the high(est) educational expectations (2). Behind these similarities, as step three indicates, lie certain ideas of teachers acting as God's deputies on earth (3), working to fulfil meticulously predefined steps of development understood as steps towards infallible progress (4). Finally, the solution put forth both by Pestalozzi and Skinner are interpreted as not fostering virtuosity in the art of teaching, but, on the contrary, minimizing its significance and by that also reinforcing the paradox stance towards the teachers between being "the prophet of the true God and the usherer in of the true kingdom of God" (Dewey, 1897/1972, p. 95) on the one hand and the mistrusted subjects on the other, following immediately upon the act of entrusting professionals with missions of redemption (5).

THE IMPORTANCE OF TEACHERS AND THEIR DISTURBING FALLACIES

One of the currently most discussed theses in education today is John Hattie's (2003, 2008) synthesis of over 800 meta-analyses concerning school achievement. For the synthesis Hattie identified 138 single factors related to school achievement that he clustered into six groups. The central question is how these groups are related to what Hattie calls "effect sizes," which is a measure of the effect of various "influences" (or variables) on student learning and improvements of test scores. The six groups are:

- student
- home
- school as an organization
- curriculum
- teachers
- teaching strategies

The comparison of these six groups revealed a clear result. The largest "effect size" is (besides the student) related to the teachers. It is teachers that primarily determine student achievement, under the condition of elaborated professional skills and therefore under the condition of a set of factors. Hattie identified eight of these influential factors; the three most important dimensions of expert teachers' behavior (Hattie, 2003, p. 15) are:

- Challenge (having high expectations, encouraging the study of the subject, valuing surface and deep aspects of the subject);
- Deep Representation (the ability of a teacher to know not only what they want to teach, but also how they will organize and structure it in the context of their particular students and their circumstances);
- Monitoring and Feedback (positive reinforcement, corrective work, clarifying goals).

Hattie's slogan following these factors is: "Teachers make a difference." However, this slogan is somewhat misleading, for this difference is not directed to the teacher as a person but to teaching as an art: "Not all teachers are effective, not all teachers are experts, and not all teachers have powerful effects on students. The important consideration is the extent to which they do have an influence on student achievements, and what it is that makes the most difference" (Hattie, 2008, p. 34).

Hattie's insights are, of course, neither very surprising nor very new. The problem that "not all teachers are effective" nor "experts" and that not all have the same "influence on student achievements" has been one of the central challenges throughout the history of education and has guided leading educational experts to find solutions ever since the world became educationalized. Today, some concerned parties focus on the utmost importance of "pre-service teacher preparation," such as the National Council for Accreditation of Teacher Education,

some focus on best practices, serving as models (Darling-Hammond, 2006), and still others address the challenges of teacher education in a transnational world (Bruno-Jofré & Johnston, 2014). All these efforts to better understand and enhance teacher education (a myriad of books and articles could be added to the list) are devoted to serve the teachers in their mission in an educationalized world, and yet there is another trajectory that counteracts all these contributions, namely, strategies of minimizing the significance of teachers in order to guarantee the success of teaching as a crucial social activity. Minimizing the significance of teachers does not necessarily indicate the indifference towards education, quite the contrary. But more than the teacher, the environment and the idea of specific principles of development, which are both related to each other, make the teacher if not superfluous, then of less importance. The mediating factor in the dynamics between the environment, the child, and the child's development is not so much the teacher but something 'beyond' or 'above,' as will be demonstrated taking the examples of Pestalozzi and Skinner.

PESTALOZZI AND SKINNER: THE URGENT SOCIAL NEED FOR EDUCATIONAL EFFECTS

Both Pestalozzi and Skinner developed their educational arguments during periods of great transition that caused fundamental fears and anxieties to which educational strategies were addressed, but teachers were largely excluded. Pestalozzi is situated in the transition from the *Ancien Régime* to the modern nation-state and Skinner in the transition from the nation-state to the post-national era. Both saw the world at risk, and both developed an educational program embedded in a particular context different from a 'conventional' classroom. From a specific point of view, the two could not differ more in terms of concrete construction of an ideal educational context, but they did agree upon the construction of education as in a successful and infallible development and progress.

Our two charismatic characters were fundamentally concerned about the future and propagated education as a remedy. In the middle of the Napoleonic Wars, Pestalozzi said in May 1807, "The dream of making something of people through politics before they really are something – that dream in me has disappeared. My only politics now are to make something of people and to make as much out of people as at all possible" (Pestalozzi, 1807/1961, p. 251). And in the middle of the European turmoil of the Congress of Vienna (1814/15) Pestalozzi wrote, "There is no rescue possible for the morally, intellectually, and economically corrupt part of the world except through education, that is, through educating humanity, Menschenbildung" (Pestalozzi, 1815/1977, p. 165).

This commitment to education as a major (if not unique) remedy for social problems emerged in the time around 1800, and Pestalozzi was certainly one of the key figures in this educational turn of the overall culture, which has persisted up to today. It is in this context that Skinner wrote in 1976, in a new preface to his

utopian novel *Walden Two* (originally published in 1948): "The choice is clear: either we do nothing and allow a miserable and probably catastrophic future to overtake us, or we use our knowledge about human behavior to create a social environment in which we shall live productive and creative lives and do so without jeopardizing the chances that those who follow us will be able to do the same" (Skinner, 1976, p. xvi).

Although Pestalozzi became the icon of teacher education and teacher unions throughout the 19th century in Europe, Japan, and North America, he trusted neither teachers nor educational institutions including the school. For him, the best possible education – actually the only real possibility – could only take place at home in contact with the loving mother, because it was she who helped the children's innate powers and faculties to develop in a harmonious (= human) way. The place of this true education is the *Wohnstube* at home, the living room or sitting room, a room of protected social interaction. It is no coincidence that Pestalozzi's most famous book dealing with his educational method was entitled *How Gertrude Teaches Her Children* (Pestalozzi, 1801/1932), which referred to Gertrud in Pestalozzi's village novel, *Leonard and Gertrude* (1781), where no school existed and the children got their education at home. A mother knows that the real world 'out there' is "not God's first creation" and would come before the child's eyes as "a world full of lies and deception" (Pestalozzi, 1801/1932, p. 350) and affect the child's development towards morality. In this way, mothers in their living rooms are preservers of the good, and they are responsible for children's development towards (religious) morality: "The core from which the feelings rise that are the essence of worship of God and morality … emanates completely from the natural relationship between the under-age child and his mother" (p. 350). Accordingly, the first manual for education was called *Pestalozzi's Book for Mothers, or Instruction for Mothers Teaching Children to Realize and Talk (published in 1803)*; a later edition was adapted somewhat for the needs of the classroom and had the subtitle: *Edited to be more suitable for elementary schools* (published ca. 1806).

The role that the living room plays in Pestalozzi's educational ideal is in Skinner's vision the secluded utopian community of Walden Two. Walden Two consists of approximately 1,000 people living in harmony with nature and their fellow men. Four social categories exist: workers, scientists, managers, and planners, the latter two representing the government. The planners are former managers who had conducted their tasks to the utmost satisfaction; the scientists are responsible for agriculture, observing children's behavior, and the "educational process" (Skinner, 1976, p. 49). "Behavioral engineering" is praised as "man's triumph over nature" (p. 70) and "social engineering" is identified as the new creation of a human order in which humanity can develop among humans. As long as the "psychological management of a community" functions, the "Golden Age" is right ahead, and the prerequisites of it lie in the construction of the ideal environment: "Right conditions, that's all. Right conditions" (p. 84).

GOD'S DEPUTIES, SUBSTITUTES, AND IMITATORS: MOTHERS, PSYCHOLOGISTS, AND RESEARCHERS

Without a doubt there are religious motives behind the expectations of an ideal environment in which humanity would be developed. In this religious horizon of expectations, theology plays a role neither for Pestalozzi nor for Skinner. God – as the central focus of theology – either has a deputy on earth, as it is the case with Pestalozzi's ideal of the mother, or he is replaced by psychologists ("They're our 'priests' if you like"; Skinner, 1976, p. 186), as in the case of Skinner, although Skinner (that is, his alter ego T. E. Frazier in *Walden Two*) admits that the major principle in education, the absence of punishing, had been discovered by Jesus (Jesus discovered "the power of refusing to punish"), although more by "accident" than through "revelation" (p. 245).

There is no doubt that there are fundamental differences between Pestalozzi's living room and Walden Two community, between the cornerstone of a loving mother and a cornerstone of estimating "mother love" as something chimerical and defining the family as the "frailest of modern institutions" (Skinner, 1976, p. 126): "Home is not the place to raise children" (p. 132).

However, there is a parallel that might be a little bit obscured, and that is the question of the role of the researcher (Pestalozzi, Skinner) in designing or creating an educational "total" environment guaranteeing the blossoming of the good. Towards the end of *Walden Two*, E. T. Frazier takes his old friend and visitor Professor Castle to a hidden point from which they are able to oversee all of Walden Two:

> We were silent as he lay back on the ground.
> "It must be a great satisfaction," I said finally. "A world of your own making."
> "Yes," he said. "I look upon my work and, behold, it is good."
> He was lying flat on his back, his arms stretched out at full length. His legs were straight but his ankles were lightly crossed. He allowed his head to fall limply to one side, and I reflected that his beard made him look a little like Christ. Then, with a shock, I saw that he had assumed the position of crucifixion.
> "Just so you don't think you're God," I said hesitantly, hoping to bring matters out into the open.
> He spoke from the rather awkward position into which his head had fallen.
> "There's a curious similarity," he said.
> …
> "I don't say I am never disappointed, but I imagine I'm rather less frequently so than God. After all, look at the world He made."
> "A joke," I said.
> "But I am not joking."
> "You mean you think you are God?" I said, deciding to get it over with.
> Frazier snorted in disgust.
> "I said there was a curious similarity," he said.

"Don't be absurd."
"No really. The parallel is quite fascinating." (Skinner, 1976, p. 278f.)

Whereas God seemed to be the 'partner' of Skinner's construction, it was Jesus for Pestalozzi, more precisely the parallel between the life of Jesus and his own. His affinity with Jesus Christ's life of suffering and the promise of redemption led Pestalozzi almost automatically to use Biblical language when "the method" and its discoverer, Pestalozzi, were discussed. Even Pestalozzi himself set out to determine whether the Gospel of Matthew was in agreement with his method, and he made the following interpretation (1802/1952):

> Now when His disciples had come to the other side, they had forgotten to take bread. Then Jesus said to them, "Take heed and beware of the leaven of the Pharisees and the Sadducees." (Matthew 16: 5–6)
>
> He [Jesus] warns his disciples against the styles of teaching, of even the most enlightened, most civilized, and most renowned men of his time formally appointed to the highest Church positions, and explains that their style of teaching was based on the decay of human nature rather than on the inward divine essence. (Pestalozzi, 1802/1952, p. 36)

Pestalozzi had a clear strategy of propagating the dignity of the method via his own biography, and it is striking how the public followed this line of 'argument.' The worried Europeans wanted common public education but education that would not call into question what appeared to be the last sure thing that one had – namely, religious certainty. The new had to combine with the old, and a new leader whose life apparently had so many similarities with the founder of Christendom could not be wrong, at least not in the basics. The educationalist and writer Johann Ludwig Ewald (1747–1822) wrote the following to Pestalozzi in May 1803:

> Finally, I am writing you a proper letter, noble friend of man, martyr for humankind, for the good, Columbus of intellectual human education; God willing, crowned with the best crown of human regard, with love of the more noble, the notables, in the Kingdom of God. (Ewald, 1803/2009, p. 596)

Ewald then concluded:

> In short: Christendom is a Pestalozzi method of developing religious concepts, educating a sense of religion, or your method is a Christian method of developing the intellectual abilities – or rather: Both spring forth from the one source, from human nature and its needs. (p. 598)

Pestalozzi enjoyed the role of agent of salvation, and one day in 1804, as he took his leave of his staff and pupils in his provisional institute in the Bernese village of Münchenbuchsee to go settle in Yverdon at the south end of the lake of Neuchâtel, he first spoke of Jesus Christ and then said: "When you think of Jesus Christ, so also

remember me, in that I have striven to lead you to Him. It is only natural that on this last morning I remind you of what I was to you" (Pestalozzi, 1804/1935, p. 227). A young teacher who was present at the event, Lotte Lutz, wrote afterwards with great enthusiasm to her fiancé and later founder of a Pestalozzi School in Frankfurt, Anton Gruner: "I think that if they crucified him, he would welcome it, for he is Jesus Christ" (Lutz, 1804/1930, p. 1).

THE INFINITE SMALL LEARNING STEPS AND THE INFALLIBLE PROGRESS

Like many other intellectuals of his time, Pestalozzi followed a specific system of reasoning to grasp the idea of progress and development—namely, what is called cultural epoch theory, or the idea of a parallel development of the individual and mankind (Tröhler, 2014): "All instruction of man is then only the art of helping nature to develop in her own way; and this art rests essentially on the relation and harmony between the impressions received by the child and the exact degree of his developed powers" (Pestalozzi, 1801/1932, p. 197). The art of teaching is limited to assisting the innate power of development that represents the heritage of the development of mankind. How Pestalozzi translated the very fact of historicity into education can be seen in the realm of language education: "Nature used thousands of years to bring our species to the full art of language, and we learn this feat, for which nature took thousands of years, in an few months; but despite that, we must not do differently than to go the same route that nature has gone with the human race" (Pestalozzi, 1801/1932, p. 315). According to this finding, the pedagogy of school subjects was the natural order of the elements, the complete natural order following the order in the historical development of mankind: "The course of nature in the development of our species is immutable. There are not, and there cannot be, two different teaching methods – only one is good – and this is the one that accords perfectly with the eternal laws of nature" (p. 320).

Accordingly, education had to be understood as a fast motion of history, fulfilling a movement of "gapless progression" (Pestalozzi, 1815/1977, p. 174). In "domestic life" the "harmonious graduation of the humanly sublime to the divine heights" takes place, following "the very same graduation in humanity" (p. 175). The principle of this arrangement is the following, as Pestalozzi emphasizes: One has only to see how the art of education "progresses in a gapless way from its germs, from strength to strength, from skill to skill, from freedom to freedom! Take another look at domesticity, that it is suitable, at every point of education that a child has reached, completion and perfection of this very point, and by that to found the art of the child with psychological certainty from step to step, and, until its perfection, to protectively guide" (pp. 180f.). Pestalozzi had no doubt that this principle of education should be at the very basis of school education, too, although he never really developed a systematic curriculum theory.

In Skinner's conception of education there is no loving mother, but we find surprisingly similar arguments: Skinner's key to successful education is not the child's mother but a teaching machine, the instructional media that Skinner (1966) had developed in his article, "The Science of Learning and the Art of Teaching." This teaching machine was advertised in a film (Skinner, 1954): "With the machine you have just seen in use, the student sees a bit of text, or rather printed material, in a window." This bit could be a "sentence or two, or an equation in arithmetic." However, this bit is not complete; some "small part is missing, and the student must supply it by writing on exposed strip of paper." According to the created problem, the student's response "may be an answer to a question or the solution of a problem, but generally it is simply a symbol or word, which completes the material he has just read." The great advantage of this kind of learning, says Skinner, is that as "soon as the student has written his response, he operates the machine and learns immediately whether he is right or wrong. This is a great improvement over the system in which papers are corrected by a teacher, where the student must wait perhaps till another day to learn whether or not what he has written is right" (Skinner, 1954).

Skinner sees three fundamental advantages of the machine: immediacy, individuality, and perfectibility:

- *Immediacy*: Immediate feedback has two effects: (1) "It leads most rapidly to the formation of correct behavior. The student quickly learns to be right" and (2) "The student is free of uncertainty or anxiety about his success or failure." Skinner says this makes "work … pleasurable." Coercion is no longer needed, for a "classroom in which machines are being used is usually the scene of intense concentration."
- *Individuality*: The machine allows student "to move at his own pace." Therefore, it solves the problem of traditional teaching "in which a whole class is forced to move forward together, the bright student wastes time waiting for others to catch up, and the slow student, who may not be inferior in any other respect, is forced to go too fast."
- *Perfectibility*: A third feature of this propagated machine teaching is that "each student follows a carefully constructed program." This program leads "from the initial stage, where he is wholly unfamiliar with the subject, to a final stage in which he is competent." The student progresses "by taking a large number of very small steps, arranged in a coherent order. Each step is so small that he is almost certain to take it correctly" (Skinner, 1954).

The fact of small steps increases the chance of success, and success in turn motivates the student to continue ("positive reinforcement"). Skinner promises that this setting is not only better in terms of motivation but also in terms of efficiency: "A conservative estimate seems to be that with these machines, the average grade or high school student can cover about twice as much material with the same amount of time and effort as with traditional classroom techniques" (Skinner, 1954).

TEACHERS AND SCHOOLS

It could seem that there is a difference between Skinner and Pestalozzi, for Pestalozzi emphasized nature and Skinner a mechanic technology. That is true to a certain degree, but it was Pestalozzi who propagated his teaching method the following way: "If a person invented a machine to cut wood inexpensively, I would acknowledge all the advantages on this machine, and now that I have without any doubt invented a better reason-machine, I propagate seriously the advantages of this machine for a while" (Pestalozzi, 1802/1958, p. 525).

The mechanical language in describing the art of teaching is not misleading, for in his famous book *How Gertrude Teaches Her Children* (Pestalozzi, 1801/1932), Pestalozzi reports an encounter with Pierre Maurice Glayre, a Swiss lawyer and politician, to whom he had explained the educational method he had been (unconsciously) practicing:

> I naturally pounced every moment upon matters of fact that might throw light on the existence of physico-mechanical laws according to which our minds pick up and keep outer impressions easily or with difficulty. I adapted my teaching daily more to my sense of such laws; but I was not really aware of their principles, until the Executive Councellor Glayre, to whom I had tried to explain the essence of my works last summer, said to me, 'Vous voulez méchaniser l'éducation' [you want to mechanize education]. (I understood very little French. I thought by these words, he meant to say I was seeking means of bringing education and instruction into psychologically ordered sequence; and, taking the words in this sense) he really hit the nail on the head. (p. 196)

Psychology was the catchword, or better psychological laws: "I felt my experiment had decided that it was possible to found popular instruction on psychological grounds, to lay true knowledge, gained by sense-impression at its foundation, and to tear away the mask of its superficial bombast" (Pestalozzi, 1801/1932, pp. 190f.). Teaching thus depended simply on manuals and textbooks that represented the psychological progress of the children; and these textbooks were promised and in part published by Pestalozzi. The parallel to Skinner is striking: Programmed learning with its teaching machines was based on the assumption of a progressing order. In both cases, the teachers or their art of teaching do not really matter, as long as they have their faith in the sublimity of the teaching aids developed by the researchers in their mission to redeem the world.

Not today's stakeholders in educational policy with their trust statistical data, not heroes like Pestalozzi, and not ambivalent people like Skinner trust(ed) teachers to be artists in the classical sense, to be virtuosi in the art of teaching – quite the contrary. None of them even considered teachers to be a profession like the profession of lawyer, priest, or medical doctor. In contrast, lawyers, priests, and medical doctors were and are not entrusted with a mission to redeem the world. They may help individuals or companies, alleviate their problems or guide

them, but it was never thought that all the social problems and the development of the world would depend on them. The dark side of this megalomania coin, the redemption of the world, is: The pathway to heaven is not to be invented or detected but is predetermined and to be found in alleged laws, identified by psychology, the academic discipline of the soul and its idiosyncrasies. In this setting, teachers are not exploring or interpreting but following the logic of development. They are restricted actors, perhaps somehow like Virgil in Dante's *Divine Comedy*; they are accepted because of their conceded rationality and virtuousness but they are not pure and sacred like Beatrice; they belong to *Inferno* or *Puragio* rather than to *Paradiso*, although their mission is to lead children to the latter, while being suspiciously monitored by those imagining themselves to know in fact the real and true pathways.

Dante Alighieri wrote the *Divina Commedia* in the second decade of the 14th century. In the spiritual realm of the late Middle Ages human progress infallibly had to end in harmony with God. An institution like the public school was far from having been on the agenda of people like Dante; education was self-education, religiously determined and not seldom connected to an ideal pure woman, as we find also in Petrarch's Laura (immortalized in the *Canzoniere*) a couple of decades after Dante's *Divina Commedia*. Purity in form of women has ever been the dream of concerned men, be it the original Heloise (written in 1094–1165) after the castration of her lover and husband Abelard or the new Heloise, Saint-Preux's unreachable love in Rousseau's *Julie our la nouvelle Héloïse* (published in 1761) or even Gertrud in Pestalozzi's first part of *Lienhard und Gertrud* (published in 1781). It was Pestalozzi who created the fictional teacher *Glüphi* based on the model of Gertrud in 1785, in the third part of his novel *Lienhard und Gertrud* (published in 1785). Nevertheless, when it came to the real organization of teacher education after 1800, Pestalozzi trusted in his method based on (alleged) eternal psychological laws much more than in the intuitive or creative art of teaching.

The religious energy behind the expectations towards education was first transformed into the educationalized program of nation building in the 19th century and then, after the Second World War, into the educationalized vision of One World (Tröhler, 2010), and it had its equivalence in visions and programs of teacher education (Rohstock & Tröhler, 2014). Not only virtuous, social, and laborious national citizens were to be fabricated, as in the 19th century, but cosmopolitan ones (Popkewitz, 2008). Under the conditions of today's claim for an inclusive education, this educationalized cosmopolitan vision addresses every human being all around the world:

> I who erewhile the happy garden sung,
> By one man's disobedience lost, now sing
> Recovered Paradise to all mankind,
> By one man's firm obedience fully tried
> Through all temptation, and the tempter foiled

> In all his wiles, defeated and repulsed
> And Eden raised in the waste wilderness. (Milton, 1671/1992, p. 444)

We must have no illusion that the religious background of the educationalized world has not many winners – all those, namely, who found their field in education: architects, caretakers at school, school furnishers, curriculum developers, text book publishing companies, inspectors, teachers, and the educational sciences together with psychology as heir of Protestant theology (Tröhler, 2011). As long as the expectations towards education grew and grow, and there are no indicators of decline, more schools will be culturally and politically backed up and invested in, currently more by IT companies than by state governments. The dark side of the educationalized world is, however, that teachers will gain even more rhetorical importance and, at the same time, will lose political influence and through that, probably, also social status.

This is the paradox of being a teacher, or, as Hargreaves and Lo (2000) put it in one UNESCO project, teaching is a paradoxical profession, facing the highest expectations and having less support: "Just when the very most is expected of them, teachers appear to be being given less support, less respect, and less opportunity to be creative, flexible and innovative than before" (p. 168). This increasingly leads to phenomena like burnout and moral problems (p. 171), creates the need for a new professionalism, a "principled professionalism," as due to Goodson (2000), who argues about the distinction between professionalism and professionalization on the one hand and a differentiation of professional standardization from professional standards on the other (p. 182), and, ultimately, heading to "post-modern professionalism" as exemplification of the "principled professionalism."

It is not the job of the teacher that is at risk but the quality of the job of teaching, which is currently being de-professionalized by the reign of standards and statistics into trivial practicalism:

> To move beyond a deprofessionalizing practicalism, we need to investigate new attempts to unite professional practices with more practically sensitive theoretical studies and research modes. This would provide both new and up-to-date professional practices, backed up and informed by theory and research. What is required is a new professionalism and body of knowledge driven by a belief in social practice and moral purpose. Principled professionalism might cover the issues listed below and would grow from the best insights of the old collective professionals and the new professionals. (Hargraves & Goodson, 2003, p. 131)

It will help, then, to redeem the school from aspirations of redemptions, to historicize the process of the educationalization of the world rather than to advocate it, and by that to lower its attractiveness to those know-it-alls, and to free teachers from missions nobody can fulfill anyhow. And it would then also help to collect systematic knowledge from the teachers' experiences in their mission in counteraction

to the knowledge of the know-it-all. This kind of empirical research has not yet been elaborated in a satisfactory way, but it is urgently needed in order to close the unhealthy gap between expectations, together with their servants and catalysts, and what is feasible. Teachers' knowledge would help to gauge teachers far better than listening to modern missionaries with no historical consciousness.

NOTE

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EETU PIKKARAINEN

7. SCHOOL LEARNING AS HUMAN GROWTH

Modal Dynamics of Learning

INTRODUCTION

As a social institution, the school has multiple functions, both in relation to other institutions and to different individuals, and there are surely different opinions about the current core function or fundamental reason of the schooling. My intention here is to elucidate the reason for the school, in the normative rather than in the historical sense (Popkewitz, 2014). I believe that it is possible to answer this question, at least in general, by conceptual inference. All such inferences are of course conditional and require that we accept some grounding premises; my main premise is that schools and schooling are deeply connected to learning, which I believe is a very commonly accepted view.

For present purposes, the school is assumed to be a setting for a special kind of learning, as human growth – that is, Bildung. Learning is defined as a change in the subject's competence: those internal dispositional properties that make it possible for her to act in the environment as she does. The process of learning is then analysed as the dynamics of modalities of human competence, arriving at a more detailed picture of the structure of human growth.

Like competence, the concept of modality is adapted from semiotic theory and refers to the set of special features typical to all authentically subjective competences, especially of a human being. These modal features are captured in natural language by modal subverbs like *want*, *can*, *know* and *must*. While all learning of any subject of action seems to follow this same dynamics, human growth must be differentiated from all other learning. To this end, learning can be analysed as consisting of three different (although overlapping and perhaps recurring) levels: pragmatic, social and existential learning, enabling a broader understanding of what is and what should be happening in school learning.

The aim of the present analysis is to suggest that, in addition to the question of *what* in curriculum debates – what content, subjects and areas should be included or excluded – the question of *how* should also be taken into account. Here, I refer not only to the *how* of the learning process, which, of course has been a seminal part of curriculum discussion (cf. Hlebowitsh, 2004, p. 262). Rather, the question concerns the *how* of learned competence as an object of education: how students will act in their social positions and roles, whatever their particular tasks may be.

P. Siljander et al. (Eds.), Schools in Transition, 97–112.

This emphasis on depth rather than breadth of learning goals will of course affect how school learning should be organized. Secondly, the differentiation of modal categories of learning to separate categories of tasks, goals and contents of education (as in Bloom's well known taxonomy of cognitive, affective and psychomotor goals) will be considered suspect (Anderson & Krathwohl, 2001). While such distinctions may be of some relevance, it is also fruitful to try to see learning and competence as a whole to be modalized, combining all modalities rather than just one or two at a time.

SCHOOL AS BRIDGE TO A SECOND NATURE

John McDowell famously approached a central anxiety of modern philosophy in questioning how a human being as a natural creature can have reason and knowledge of the world that are commonly regarded as transcendental features (McDowell, 1996, xi). His solution to the problem is rooted in the concepts of second nature and Bildung. Human reason is first depicted (by reference to Aristotle) as a second nature, by which he means the habits of thought and action, based on the potentialities of the normal human organism and learned by "initiation into conceptual capacities which include responsiveness to other rational demands besides of those of ethics." In the absence of a useful and succinct English expression, he characterizes that process of initiation by means of a term from German philosophy: Bildung (McDowell, 1996, p. 84).

While McDowell develops this conception of second nature from Aristotle, stating that the notion is all but explicit there, Hegel deploys it very explicitly in the *Outlines of the Philosophy of Right* (§151): "the habitual practice of ethical living appears as a *second nature* which, put in the place of the initial, purely natural will, is the soul of custom…" In the supplementary text, he continues: "Education is the art of making people ethical. It considers them as natural beings and shows them the way to a second birth, the way to change their original nature into a second, spiritual, nature, and makes this spiritual level *habitual* to them" (Hegel, 2008, p. 159).

In his main philosophical texts, Hegel does not explicitly consider what he means concretely by this reference to an art of education or what might be the role of the school therein. In his philosophy of right, he describes a society's three main (ethical) institutions as family, civil society and the state. While education happens partly within the family, its function is to prepare children to leave their families and enter as free persons into civil society (§175): "Thus the individual becomes a *son of civil society* which has as many claims upon him as he has rights against it" (§238, 218). As the highest form of spirit, the state also plays the leading role in education. Hegel suggests that the best method of educating a child in ethical conduct is to make her a citizen of a state with good laws (160): "It is by becoming a citizen of a good state that the individual first comes into his right" (161).

This insight that school and education are connected to and indeed dependent on society is crucially important. John Dewey, who was much inspired by Hegel,

is well known for his promotion of this idea. According to him, the school should be "a miniature community, an embryonic society" (Dewey, 1932, p. 15), which may be characterized as the principle of the contextuality of education. In other words, education is social action, necessarily embedded in the cultural and structural context of the surrounding society. Secondly it means that the prevailing society requires a certain kind of education for its members; in Hegelian terms, civil society has many claims. This contains both general requirements concerning the ability to navigate society and to behave properly. In addition, within the many specialised parts of society where an individual acts, institutions (and especially employers) set specific requirements. One of the main tasks of the state is to moderate and fairly coordinate these special requirements and needs. On that basis, the third meaning of the principle of contextuality can be formulated as the transformation of societal determination to pedagogic determination (Benner, 1996).

In a pre-modern society, such as that of Aristotle, there was no school system in its modern form, and no need for one. From our modern point of view, the process of modernization has meant the continuous and accelerating increase of complexity in society. Not only has knowledge expanded but the need for knowledge has increased, and the objects of knowledge have multiplied – in production and technology but also in the moral and ethical spheres, with increasing division of labour, travel and migration. The dependence of education on the prevailing culture and society was immediate and direct. Previously, school was not needed as a bridge to society, as children could follow their parents, learning required skills and knowledge through natural socialization – societal and pedagogical determinations were one and the same. In the modern context, this socialization model of education has become obsolete as social complexities have made it dangerous or impossible for parents to bring children into the workplace or other settings. Now, school is where societal determinations are transformed into a safer and more accessible curriculum.

But this conception of school as a bridge from the child's natural existence or family environment to civil society does not fully comprehend the function of schooling. The founding father of the modern school system, J. A. Comenius, stated that the function of school education is not so much to initiate children into membership of society but rather to prepare children for something that does not exist but will in the future (in this case, the heavenly empire on earth), as well as to repair society, which was seen to be in a state of turmoil and turpitude (Comenius, 1928). This principle has been central in the European philosophy of Bildung (under the slogan *Höherbildung der Menscheit*), in reform pedagogics and later in critical pedagogy.

However, G. S. Counts, a noted critic of Deweyan progressive education, insisted that this approach had not elaborated a theory of social welfare "unless it be that of anarchy or extreme individualism" (Counts, 1932, p. 7), and that instead of being thought of as the prevailing society in miniature, the school should rather be a model society or a model of an ideal society. I consider this idea of the function of school as grounded in the principle of an open (and better) future. To the analytic ear, this may

sound like an unnecessary politicization of education and an unfounded idealism about the possible effects of education on social structures. But there are also more realistic grounds for this kind of thinking, of which the most important is that the momentum of social and cultural change seems to be accelerating.

It was characteristic of pre-modern society that culture and society seemed to remain relatively stable from generation to generation; changes became visible only when the lives of older and younger generations were compared. Now, it seems that remarkable and irrevocable changes occur during the lifetime of every generation, making it reasonable, for instance, to talk about adult education. Changing environments and responsibilities mean that adults can no longer get by on the capabilities acquired during their youth. There is no reason, then, to socialize young people into the prevailing culture and society because these may cease to exist within their adult life, and they will need other skills and knowledge beyond those taught in school. It follows that school should be a bridge from a current society to the future society.

But this presents a problem: how can we know what the future society will be like? And if we cannot foresee that, how can we build a bridge to get there? This problem is further complicated by Barnett's concept of super-complexity (Barnett, 2000). Not only has the environment – the structures and resources of life – become increasingly complex but our interpretative frameworks have come to be contested: We can no longer be sure how best to interpret and understand the complexities of our environment or what interpretative framework to choose. At the same time, we must realistically grant that all our actions have some effect on the future. This is especially true of actions like education, the effects of which will, by definition, be known only in the future. We know only that the future will be different from the present but not how, or whether it will be better or worse. Perhaps we can predict that it will be still more complex than the present. But in knowing that our education actions will effect change, it is natural and reasonable to try to ensure that the future will be better.

Dietrich Benner defines this open future principle as a "non-hierarchical order between societal forms of practice" (Benner, 1996, p. 95). By this he means the more or less independent and differentiated forms of practice in modern society, as in politics, arts, religion, ethics, production and education. And it is precisely these forms of practice that create the societal determination to be transformed into pedagogic determination in school by means of teaching and curriculum. This second principle assumes that the possibility of an open and better future can best be maintained if every individual develops her dispositions and abilities as broadly and deeply as possible. By implication, this is immediately hindered by exclusion from some area of culture, to be replaced by some other area. In short, Benner's formulation can be interpreted as a negative warning about what education must not do. In particular, we must not allow any area to gain precedence over the others. To understand this bridge function more positively, then, in terms of what we should do in school, we must return to the question of learning.

HUMAN GROWTH AND LEARNING

How, then, might school fulfil its function as a bridge from here to some unknown future? McDowell situated the creation of second nature as Bildung, which he understands to be a much broader concept than school. In any event, we may think of school as a very important environment in which the process of Bildung can and should take place. I would suggest that, at least as a technical translation, Bildung can be taken to mean *human growth* (see Pikkarainen, 2012). In our modern, super-complex situation, it may no longer be adequate to understand Bildung as becoming fully human, as Kant characterized education, but rather as growth *as* humans. The root of the word Bildung is *Bild*, or image, referring originally to human beings as in the image of God. Today, it is perhaps more difficult to say what kind of image a human being should be, or of what, as more emphasis is placed on the processual character of Bildung. To begin, it may help to take a look at the concept of growth.

The basic meaning of *growth* is that something changes and becomes bigger. This mathematical conception of growth concerns a function; in a growth function, the value of the variable of interest (the dependent variable) increases when another variable (the independent variable) – for example, time – also increases. In this kind of function, we are interested only in the changing value of one variable at a time; the occurrence of growth depends on the change in only one variable. (Of course, we may also be interested in other independent variables as causes of that growth.) An important everyday example of this kind of mathematical, one-variable growth is economic growth. We know that many variables affect economic growth, and we believe that it may entail many kinds of changes in our lives and production, but ultimately, it is measured by only one variable: money.

Another important case of the growth concept in everyday discourse is biological growth (Growth, 2015), referring to such phenomena as the growth of plants, animals and children. The main difference between this biological type of growth and the previous mathematical (and economic) type of growth is that the latter is multidimensional in character.[1] The difference can be also described by reference to the distinction between quantitative and qualitative. In mathematical growth, one variable changes its value in one dimension, which is typically imagined as a vertical line. When a value grows, it goes up; when it diminishes, it goes down. While the quantity changes, the quality of the variable remains the same – or at least it should remain so. In contrast, biological growth can be imagined as advancing in many directions. Of course, it is possible to attempt to reduce that multidimensionality to many individual variables, each growing one-dimensionally along their own coordinates. But we still have the qualitative problematic – that to understand this kind of growth, it is not enough to sum together the quantitative changes in individual variables. Instead, we must assess the qualitative features and differences of these variables. This is especially important where growth may require the diminution of some features as others gain. This entails a qualitative transition, which can

sometimes be very radical in biological growth processes, as for example in the metamorphosis of butterflies.

In some cases, quantification of a multidimensional qualitative growth process may be possible and viable, as in a predetermined biological process such as the growth of a butterfly from the original larva. Though any single variable may develop nonlinearly (for instance, size may first grow and then diminish and then grow again), we can envisage beforehand the changes and phases through which the process will advance and assign numerical values to the separate phases of the process for dimensional evaluation. Very often, we turn a blind eye to the qualitative and just use some available measure. The same applies when we evaluate the growth of a human being in terms of years of life or indeed when we invoke money as a measure of wellbeing.

In the case of human growth (or Bildung), this reduction of qualitative multidimensionality to a single quantitative measure must be strictly avoided. This concept must also be clearly differentiated from biological growth, although both have much in common. Both are qualitatively multidimensional, and both are irreversible by virtue of complex qualitative changes. It is often thought that human growth is somehow based on biological growth, especially because during school years, they typically coexist. Now, however, with increasing adult education, adults also find themselves back in school to learn.

The two important differences between biological and human growth are that the latter is not predetermined or foreseeable, and secondly, human growth is not bound to the characteristics of the species but rather to the culture. The first distinction means that human growth cannot in principle be evaluated by any measure because we cannot know in what direction and in what relation it may advance. This strange and paradoxical deduction follows in part from human growth's connection to the development of human culture; we might even say that the development of the culture is a fundamental part of human growth.[2]

However the most crucial difference between biological and human growth is that while the former is realized as observable (at least in principle) changes in the physical nature of the growing subject, the latter is a consequence of learning. The dictionary definition of the verb *learn* is defined as "gain or acquire knowledge of or skill in (something) by study, experience, or being taught."[3] I refer here to those areas of knowledge and skill involving a general technical concept of competence (see Pikkarainen, 2014a). Many of the difficulties of capturing the concept of learning follow from the peculiar characteristics of competences. One cannot gain or acquire competences in the way that one can acquire money, food or other things or resources that may be called *objects*. On this view, learning would be a strange type of action; indeed, rather than thinking of it as an action at all, learning can be thought of as a process that happens to us (Oelkers, 1985, pp. 212– ; Siljander, 2002, p. 26), but in many ways, it remains connected to our actions.

We could say that education and schooling represent an important societal activity simply because they are thought to influence and direct people's future actions;

learning and competences are the tool or medium of this influence. Competences, knowledge, skills and so on are special kind of properties of any subject that enable it to act in the way that it acts (Greimas & Courtés, 1982, pp. 44–46; Pikkarainen, 2014a). Action can be defined as a two-way circular interaction between subject and environment (Pikkarainen, 2010), comprising outward effects from subject to environment (deeds) and inward effects from environment to subject (perceptions). In this way, action is determined from two directions: by properties and events of the environment on the one hand and by the competencies of the subject on the other. It follows that there are two possible ways of influencing someone's actions: through environment or through competences. While changing the environment may lead to noticeable changes in action, these changes are likely to persist only as long as the environment remains the same. Clearly, this is not sufficient when targeting an unknown future; to that end, it becomes necessary to change the competences of students.

Competence is in principle a non-empirical property (see Pikkarainen, 2013) that only becomes manifest when the subject acts. In that sense, it is a theoretical construct that we create by inference and assumption on seeing the subject act. This inference of competence is always insecure; when we see a subject doing X in environment Y, we can be sure that they have the competence to do X in Y, once and at just that moment – any more than this is a guess. We cannot know what kind of competence it is, what else X can do that is similar or different, whether they can do it in slightly different environment or again in a similar one. As with other similar uncertainties, more repetitions of actions will lend more probability to our inferences and guesses, but the basic insecurity will remain, both for external observers and for the subject themselves. This is a significant and well-known challenge for the evaluation of learning; even the best learning tests will have very limited reliability. Taking account of the previously mentioned qualitative multidimensionality of human learning and the unknown requirements of future environments, it therefore seems better to develop more versatile actions for learners rather than any special tests (cf. Hlebowitsh, 2011).

Here is also another difficulty: competences cannot be affected in the same way as normal empirical properties of our environment because they are beyond the reach of the actions of other subjects or of the subject themselves. How then do competences change? Partly by chance and partly alongside the processes of biological growth (and decay), but for the most part, it probably occurs as and because the subject acts. Traditionally, learning is characterized as a transformation of competences that happens as a result (or rather as a side effect) of a subject's own action. Again, learning is not an action in which the subject draws on their own competences, but in interaction with their environment, their own competences may change to some extent. Here, it is important to note that (a) we always do only that for which we already have a competence; (b) we can never do anything for which we do not have a competence and (c) in doing something for which we already have a competence, we can acquire a competence to do something we could not do before. So, it is not

exactly true that by playing violin we can learn to play violin. If we can learn to play violin, we did not have that competence already. However this is not a paradox, because by playing violin badly we can learn to play it better. In short, to learn something, we must do something else.

What kinds of competence should be created in human learning? This question would be easy to answer if we had prior knowledge about the future of mankind and/or if we had a sound and reliable consensus about what kind of future we want. Unfortunately – or perhaps fortunately – we have neither. One natural starting point would be to construct the curriculum around the most central, foundational and stable competences required in the different areas of societal action, both current and historic. This futurological task would involve identifying various development tendencies – how one area may grow while another will diminish. Especially in its Bennerian formulation, the open future principle explicitly criticizes this kind of prediction. We should not try to determine the future by means of calculations and preferences based on our own current situation and experiences; rather, we should try to keep the future open, assigning jurisdiction to students as the inhabitants of that future society. To this idea of autonomy I would add a note of caution: that at least some of the typical and central current challenges will continue to worsen in the future. These might include (super-) complexity, radical change, general or relative lack of resources, social inequality, and technological and political risks. These problems are critical because they place the whole existence of humankind under threat. Additionally, they are perhaps not solvable by normal adaptive problem solving methods because they originally emerged as side effects of earlier problem solving. Instead, then, overcoming them may require more or less radical alterations to both the means and ends of human action.

Future-able action competences should make it possible and probable that people can act in free and creative ways. A rapidly changing and super-complex environment requires that all actors – not only leaders and managers – can make autonomous and independent decisions in new situations where no pre-existing norm or rule is available (Levin, 2012). Critical thinking is not enough; action should also be critical and creative. At the same time, these decisions should be reliable and reasonable. This may sound paradoxical but creativity does not imply irrationality, and individual choice need not mean an absence of collective understanding. The evaluation of a proposed action's reliability and rationality will naturally require time and discussion. In practice, the reliability and rationality of individual free and creative action demands ethical responsibility on the part of the actor (Pikkarainen, 2014b); without that, no favorable outcome can be expected. Naturally it is also essential that actions should be as informed and skilful as possible, but these qualities are not enough in situations where there is strong pressure to make selfish and unethical decisions. Only ethical responsibility can lead to the acquisition and use of adequate information and skills.

MODAL DYNAMICS OF LEARNING AND ACTION

What, then, is the mechanism of human learning? While it seems unlikely that any special laws of learning are to be found (cf. Oelkers, 1995, p. 687), the thesis of similarity is perhaps the most law-like learning principle. This states that while we must do something else in trying to learn to do X, it is more probable that we will learn X by doing something relatively similar to X than something relatively different. Any precise quantitative formulation of this principle is impossible or unusable because the similarity and difference of actions is always also qualitative. However, we can try to analyse how learning takes place in action, which may prove useful in planning teaching and study activities. The concept of modal competences (Greimas, 1987, chapters 7 and 8) seems helpful in this analysis. We can think of a competence as a disposition or ability to do something. In this sense, competences might include singing a song, riding bicycle, writing an essay or swimming across the pool. When we see someone performing an action, we can infer that she has just that competence. In addition, we may assume that she has countless other competences that are not manifest at that moment.

Why do certain competences rather than others manifest in a certain situation and in a certain way? This depends in part on the situation or setting, but it also has to do with the competence itself. In addition to the special performance content of the competence, there is its modality or modalization. The general structure of modalization is independent of content and provides a formal means of analysing the differences and similarities of distinct competences. In addition, it offers a tool for considering the dynamics of both action and learning at a theoretical level. In logic, there is a long tradition of modalities research. The concepts of possibility and necessity have been studied as alethic modalities since the Middle Ages, and more recently, G. H. von Wright and others created deontic logic for the study of concepts of obligation and permission (Garson, 2014). While logic studies the truth of clauses and of inferences between them, Greimas adapted modalities to his semiotic theory to study the meanings of any expressions that essentially all describe the actions of some subject. The modalities of competence (and so also of action) can be reduced to the four main subverbs of typical natural languages: *want, can, know* and *must*.

The modality of wanting (volitional modality) is clearly the most foundational, as it can be assumed that no subject does anything they do not want to do. Although it is easy to invent counterexamples against this categorical formulation, it remains the case that some kind of active and voluntary intention or volition or choice is associated with our concept of action. In the area of education, the concept of motivation has been of essential importance, as to learn something, a student must do something, and motivation is needed for that doing. The teacher's task is to try to motivate students – that is, to make them want to act in a proper way. It is seldom clearly understood that motivation is not only a tool for teaching and learning but also an aim, as the necessary part of the acquired competence. For Herbart, this

was clear; the educative instruction should create interest in the taught content (Herbart, 1901, p. 32). As a goal of learning, this modality might be called *interest* or even *enthusiasm*. We can say that it is of no use to teach mathematics or music without at the same time trying to create a zest for calculation and an eagerness to play music.

For action, however, the modality of wanting is not enough. Sometimes, you just cannot do something in spite of great eagerness and desire; in those cases, the modality of *can*, or alethic modality, is missing. Typically, this happens when that doing is not possible in the current environment. For all your eagerness, without a bicycle, you cannot ride and without water you cannot swim. If you just want to move, you can choose walking instead of riding or swimming, and that will suffice. It is typically the case that you can do something if you happen to use a method that suits the situation. As an inward effect of the action circle, perception offers the subject necessary feedback about the state of alethic modality – that is, the actual success of the action. This feedback determines our emotional valence and affects our concomitant doings. Typically, good feelings of success can strengthen the positive alethic modality of capability and feed one's eagerness to do the same again. Small failures and problems may cause irritation, affecting efforts to try again by other means and/or in other situations. If this continued effort leads ultimately to success, the temporary irritation may amplify the emotion of satisfaction, building persistent self-efficacy and the competence of hope (Snyder, 2002). In contrast, recurrent failure may lead to negative alethic modality, underachievement and fatalism, and to the extinction of wanting.

The third modality, knowing, is both the best known (because it is so near to the specific content of the competence) and the most ambiguous and equivocal. These aspects are connected. The centrality of knowing has prompted much conceptual specification and argument, leading to confusion. The first and most basic problematic differentiation is between knowledge and skill. As a modality of competence, these are just the same thing, a question of the reservoir of experiences accumulated by the subject when wanting and trying to do something in different ways or environments – sometimes succeeding and sometimes coming to nothing. This is perhaps the most common way to think about learning: as a method of trial and error. Here, the concept of tacit knowledge (Polanyi, 1998) is very useful because it does not differentiate between knowledge and skill. The subject has certain methods it can deploy – for example, ways to move its organs and itself – and in addition, it can apply them in suitable environments. The greater this reservoir, the more probable it is that the action will be successful and consequently that the volitional and alethic modality will develop. Conversely, a more developed competence of hope can cause the growth of (tacit) knowledge as a result of active search of one's environment and experimenting with different operations. Only when the subject in a social environment possesses human language will part of this cognitive competence differentiate as linguistic and propositional knowledge (cf. Sebeok, 1985).

The modality of must (deontic modality) can best be understood as originating in a restriction or a second level modalization of the volitional modality. Paradoxically, it can be described as a subject's ability to do something else that it wants to do. More understandably, it can be thought of as another desire that can displace an original one. Typically, knowledge can create this kind of setting, where the subject wants to do something but knows that it cannot be done at the moment. It can be even dangerous to try, and so the current desire must be resisted, even when very strong. Emotionally, such situations are charged and controversial. This modal competence can also be found among animal subjects, but its most important function is in human learning, and it provides the foundation for the possibility of moral responsibility. The learning of moral responsibility is a complex and multiphase process that requires the development and interplay of all four modalities. This process is the basis and core of human growth and should be the conscious and, ultimately, the most important goal of school education. Traditionally, this task of education is often understood as the development of virtues or character. Virtues and good character traits are of course important moral resources (Glover, 2014 [1999]), and every student must have the opportunity to develop her dispositions in all areas of human action. However, the most important factor may be the training of the deontic modality.

There is a real possibility of misunderstanding the deontic modal competence. Although it definitely does not refer to any absolute conditioned obedience to any authority or rule system, it may require something like it as a development phase. The learner must learn to resign her own will to another will – not because the other will is stronger (in the sense that it can constrain or threaten her) but because the other will have better reasons behind it. At some stage, this means that the learner can trust others and their good intentions. The key issue is that this modal competence relates to self-regulation of action. The development of this self-regulation can be drafted theoretically as three levels that do not exclusively follow each other but are rather nested and overlapping (Kukkola & Pikkarainen, in press). The first level is *pragmatic*. Here, we can imagine the subject acting with objects, fulfilling needs by utilizing objects from their environment. At this level, the deontic modality, as described earlier, appears as a technical norm based on knowledge: if you want to do X, you must do Y. If you want to eat, you must wait until the food is nearer. The subject must repress a desire in order to satisfy it, or give in to a smaller desire in the moment to satisfy a greater desire in the future. As we can clearly see, this level never ceases to affect us. We will always have pragmatic tasks and problems, but these should not perhaps be seen as independent technical questions but as in many ways connected to the later levels.

The second level is social. This level is much more complicated and must probably be divided into sub levels in later analysis. Here, the subject must take account of the desires of other subjects and of common group desires as well as their own. There can be many reasons for this; someone can be a resource, a tool for my ends, so I must please her. Or I may represent a tool for a stronger subject and I must obey her for my own safety. Or I can like and admire the other subject and so wish to submit

to her desires. This last occasion arises, for example, when a mother subjugates her own well-being to the needs of her child.

Traditionally, education has been understood as social activity and socialization, yet very often, school has been understood as a place for plain pragmatic learning.[4] Especially among subject teachers, it is not uncommon to hear that they see it as their main or sole task to transfer or create the required knowledge and skills of their subject area. Yet the whole action of education is social interaction, and its goal is to create competences for social action. Because human beings are through and through social beings, human growth takes place only in social settings. It does not seem possible to teach neutral or non-modalized content competences and modal competences separately; they must be learned together.

Human beings are not only social but also rational. These two characteristics, though certainly deeply connected, are not identical; many animals (like ants and bees) are social, but they are not rational in the same sense as human beings. Their rationality represents only means-ends rationality (if the separation of means and ends makes any sense in their cases). Human rationality does not so much mean practical efficiency in all our actions but rather an ability to question both means and ends, to seek and to offer reasons (cf. Brandom, 2009). In this sense, our rationality is not so much a feature of our existence or actions; rather, it is a certain type of action that is connected to other actions. This action is originally social and requires human language as a medium. Earlier, action was analysed as comprising outward and inward effects. Now, we must add another dimension of external and internal action. External action consists of empirical deeds and perceptions; internal action consists respectively of an outward internal activity (planning) and an inward internal activity (evaluation). This model is depicted in Figure 1.

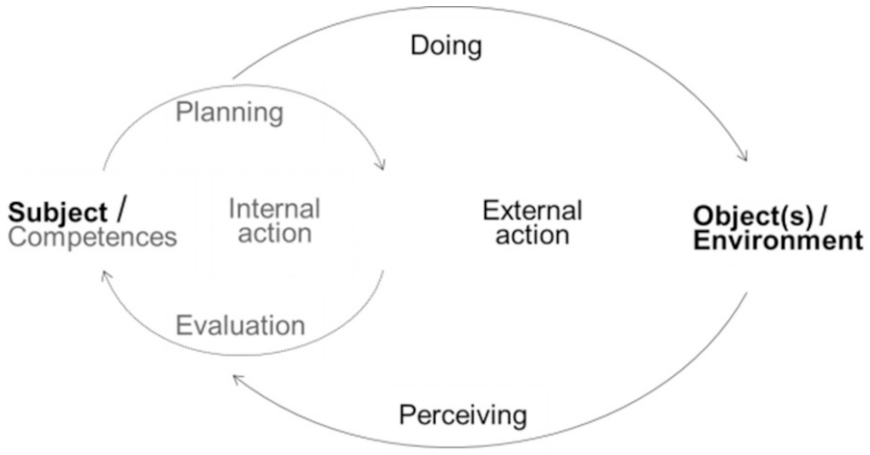

Figure 1. Model of action

We can assume that human thinking, the strong and peculiar internal action of human beings, develops through linguistic social interaction and discourse. Planning and evaluation discussion is a form of internal-external action that differs significantly from the normal communication also found among other more or less social animals. Communication is an effort to affect the other subject's action, to make them do something or to prevent them from so doing. Instead, discussion involves collective planning of some possible action and perhaps further common evaluation of environment and earlier actions. Here, the use of language requires adherence to common rules, as well as to earlier common plans and evaluations. Any rule or common decision can always be questioned, but this presupposes other common rules and decisions, making the interaction somewhat impersonal and independent of any individual authorities.

This logic of discussion paves the way to a third level in the development of deontic competence and human growth as a whole. This level can be called *existential*. This does not refer to the basically irrational foundationlessness of individual autonomy sometimes stressed in existentialist philosophy. Rather, individual responsibility and conscience involves responsibility to rationality and reasons grounded in social reality but whose validity is not based on any contingent authority or decision event. This highest level of human rationality and ethical responsibility must not be seen as detached from mundane moral resources and learned principles but as an ideal of increasingly universal evaluation and the development of morality in more and more complex and conflicting ethical problem situations.

CONCLUSIONS

In principle, one should not try to develop a theory of education from a theory of learning, as such a move will quickly lead to vicious circular inferences, such as the following. If children learn by method X, their education must be organized by method Y to cause children to learn by method X. But surely they already learn in that way? Here, the course of the argument has hopefully been different. Beginning from the question of why school exists, it was assumed that school is needed as a special kind of bridge between the spheres of children and adults on the one hand and between the current and future society. The kind of human growth needed for such a bridge was then established, as well as the kinds of action competence that should be learned. A central assumption was that, in preparing for an unknown and probably yet more complex and problematic future, we must emphasize educational content that has traditionally been called formal. In other words, it is important what people can do, but it is even more important how they do it. This formal structure of competence was analysed using modalities as a theoretical tool. The questions of teaching, studying and educational interaction were assigned to further research.

Conclusions about the function of school and school learning can be summarized as follows. First, the school must clearly and deliberately provide an environment that differs from current society. While it must simulate some basic features of current,

previous and desired future societies, more of its properties should be planned on the basis of requirements for human growth. To foster learning, school should stimulate students' actions, as we learn only when we act. Boredom should be minimized and should arise only when demanded by learning. Action should be organized so that, whatever its content, it will be challenging and rewarding, creating interest and eagerness, hope and a sense of capability, skill and knowledge, and above all, a sense of duty and moral responsibility. All activity should be accompanied by rational discussion about relevant concepts, reasons and alternatives. In a word, school should be a model of an ideal society.

Is this possible? Surely, more or less. Is it not already so? Our success in this regard will determine the continuation and development of our culture and a better future for our children.

NOTES

[1] Although biological growth of an individual organism can be defined as mathematical growth of its cells, size or weight, this definition is quite uninteresting as such.

[2] This is why Bildung is a broader concept than school or education – it also includes action that maintains and develops human culture. For example, the work of a writer can form an important part of Bildung (i.e., advancing human growth), but it is still not reasonable to categorize it as education, let alone as schooling.

[3] It is interesting to note that, from the 13th to 19th century, it was usual in English to use "learn" as a synonym for "teach." Now, this is regarded as incorrect usage, but here we can see the origins of the ambiguous current usage of "learning" as a synonym for "education," and why it is thought of as an action proper, as in the term "e-learning." (Source: Oxford English Dictionary)

[4] It is easy to think that the social level is the first level and that the pragmatic level would develop from it by abstraction of all the soft and ambiguous human stuff to concentrate on purely technical questions. While it is true that this kind of abstraction and concentration has happened in technology and engineering, it must be stressed that technology and engineering are themselves very social actions and a development of societal structures (Latour, 2005). Rather, human beings are social from the beginning, and the pragmatic level is only a theoretical concept here. To see a "pure" pragmatic level, we must look at some of the non-social animals. For human beings, the purest pragmatic level may occur in the earliest months of life.

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SECTION III

SCHOOL, ECONOMICS AND LABOR MARKETS

In this section, education is analyzed from the point of view of the economics of education. Although the link between institutionalized education and the economic welfare of the individual and society is, as a matter of course, recognized in the history of educational thought, the economics of education has, by itself, deepened our understanding about the complex nature of the economic value of education. As the articles in this section generally demonstrate, current understanding about the economic value of education is, in many respects, far more complex than assumed by the first-generation economists of education in the 1960s. A number of critiques have emerged over time from the economics of education that have challenged the explanatory power of the original neo-classical human-capital orthodoxy and the belief that it has succeeded in demonstrating the precise quantitative contribution of education to economic growth. For example, the screening hypothesis introduced by information economists questioned the reductionist, one-dimensional causal assumption constitutive to the human capital approach which conceived education as having (solely) a productivity augmenting function. The screening hypothesis showed how omitting an individual's pre-established abilities could lead to serious inefficiencies in both education and labor markets; the theory of segmented labor markets offered a much more plausible explanation of earning differences, involuntary unemployment and labor market discrimination than the neo-classical conception of labor markets. Moreover, the critique introduced by radical economists showed that the economic value of education does not depend solely or directly on cognitive skills (as the human capital concept was commonly interpreted) but also and emphatically on non-cognitive skills; and the theory of endogenous learning, with its claim that productivity increases as a self-generating process, complicated the traditional growth accounting approach (using standard production function estimates). Although these critiques cannot be understood as monolithic, the common denominator is that they take a critical stance to the basic neo-classical assumption that markets inherently allocate resources efficiently. Consequently, then, from these critical viewpoints the state's role in economy can be justified on efficiency grounds, as well as on fundamental moral and social grounds. All these critiques, as it becomes clear in Kontio and Sailer's article, of the neo-classical human capital orthodoxy are relevant and under continuous debate to this day.

Although the demonstration of the economic value of education has proven to be far more complex than was assumed by the first-generation economists of education, it does not follow that educational investment cannot have positive economic returns. This kind of doubt was perhaps first pointed out by the monumental and influential

Coleman Report (1966) which concluded (at least when following the popular line of interpretation) that students' learning outcomes were determined mainly by their socio-economic backgrounds and by peer-effect rather than by schooling itself. Educational investment was therefore assumed to be highly inefficient, and unable to promote the development of societal equity. The conclusions drawn from the findings of the *Coleman Report* were rarely accepted without reservations; nevertheless, skepticism about the investment returns of education has never really died out. Naturally, the question whether "money matters" in education may have significant implications for governmental investment policies on educational equity. Against this "money doesn't matter – argument" Levin (who in matter of fact was among those economists of education who pointed out the certain shortcomings of the *Coleman Report* immediately after its publication) argues that investing in educational justice can be supported with strong economic evidence. Levin's study, however, differs from those contemporary views that interpret the human capital concept as referring primarily to cognitive skills. The reason why Levin defines high school completion as a minimum standard for an adequate education in America is that high school graduation is assumed to improve not only cognitive but also non-cognitive outcomes – both improving that individual's labor market prospects and future well-being, independently of test performance. In addition, high school completion seems to entail large public benefits so that, as Levin concludes, when the (total) costs and effects are identified, the moral imperative for public investment on adequate education becomes a tempting option also from the economic point of view.

Moreover, although the study of the production of education was not the main focus of the first-generation economists of education, the human capital approach offered a framework for studying schools as firms i.e. studying the efficacy of educational production. Naturally, when the production of education is modelled on this framework it implies the application of a traditional production function approach. Where the original labor market focus of the first-generation economist of education left school pedagogics largely untouched, the study of the production of education brought economic analysis in close relation to the pedagogical processes. When this interrelation between economic and pedagogical processes is apparent, it is crucial, as becomes clear from Timmermann's article, that we have a proper understanding, of the meaning of the economic concepts of productivity, effectiveness and efficiency (also at the macroeconomic level) and, in addition, of the peculiarities of educational production. Why this is crucial is, of course, that only when these conditions are met can enlightened school reforms become possible.

KIMMO KONTIO AND MAXIMILIAN SAILER

8. THE STATE, MARKET AND EDUCATION

In contemporary societies, education is commonly recognized as one of the central responsibilities of the state. Education is not only largely regulated by the state (e.g. via curriculum, achievement standards, compulsory school attendance) but also for the most part publicly funded and provided. In OECD countries (2014) public funding exceeds 80 percent on average of all funds for educational institutions. For primary, secondary non-tertiary educational institutions public funding exceeds 90 percent and these public investments on education accounts on average for 13 percent on total government spending and, on average, 6 percent of gross domestic product (GDP)[1] (Gradstein, Justman, & Maier, 2005, p. 1). The large amount of public spending on education tells us, logically, that there is a strong interest in promoting education by the state.

How are these public interests expressed? In modern mixed economies there are two mechanisms that determine the allocation of resources for education: Political processes of public decision making and market signals. When the public decision making takes place in the context of a modern democratic concept of state, then it can be said that the resource allocation is determined by the collective value judgments made through democratic political institutions (see Bishop, 1995). On the other hand, the resource allocation for education is dependent also on the market signals arising from economic disequilibrium. Obviously, educational policy in most contemporary societies is, therefore, geared to both of these determinants and these together explain the amount of public expenditures on education.

In the first part of the article, the justification for the public funding of education is addressed. The main focus is to study this justification in terms of the benefits of education. We attempt to prove that the state's dominant role in education becomes understandable when focusing on largely *pedagogical* reasons. Namely, if the economic decisions concerning education are left completely to individuals (mainly parents or legal guardians), there is, from the point of view of society, a great risk that education will be under-consumed and under-invested. In other words, if the individual is considered as a responsible decision-making unit, completely in charge of its own education, the demand for education could generally decrease – with the effect that education might transmute to an under-consumed and under-invested good. From a logical standpoint, then, it is comprehensible that the state should regulate and publically fund education in order to avoid a mismatch between supply and

P. Siljander et al. (Eds.), Schools in Transition, 115–136.

demand. This can be considered as an economic formulation of the very traditional model of argumentation in educational theory, according to which the nature of educational interaction is asymmetric – asymmetric in the sense that the other party (a child, younger generation) does not yet have the necessary rational faculties to be able to act as a responsible decision-making unit and needs intentional educational support from the other, more competent party – an adult, older generation – in order to achieve these faculties.

Arguing for and justifying the public funding of education does not imply that education inevitably must be publicly provided in general. Although education is mostly publicly funded in contemporary societies, it is possible to think that publicly funded education can be provided privately by creating markets for educational provision and increasing the sphere of parental choice. In the second part of this article, this solution is briefly studied from the point of view of Milton Friedman's libertarianism and microeconomics. In spite of the fact that Friedman advocates publicly funded education (especially K-12-education) his argument on behalf of the private provision of publicly funded education can in some ways be considered a starting point for contemporary discussion about the privatization of educational provision. It will be shown that, first, Friedman's ideas about public education challenge the traditional educational asymmetry-argument described above so that the emphasis on educational decision making must be shifted from the state to the parents. From Friedman's libertarian standpoint the state's educative, or in his own words, the paternalistic role in education, is an uneasy solution because it "involves the acceptance of a principle – that some shall decide for others […]" (Friedman, 2002, p. 33–34). Friedman does not propound an anarchist reform of educational institutions but is suggesting that governmental regulation must be *minimal*. Besides this libertarian dimension, Friedman's argument includes a claim that privatization will reduce governmental spending without reducing the quality of education. That is, if traditional governmental interventions were legitimated from the external efficiency point of view — i.e. if economic decisions of education are left to individuals (parents) alone – this leads to the under-consumption and under-investment of education; the excessive governmental role, by contrast, has caused the opposite problem: the problem of over-education. The reform of educational institutions based on the idea that the sphere of parental choices must be widened would lead, according to Friedman, to a more efficient schooling i.e. to the situation where the societal preferences are more adequately met. Also, according to Friedman, from the equity point of view the increase of parental choice can improve the function of the educational system because with current conditions it can widen the freedom of choice for all parents, in spite of any socio-economic and demographic factors. At the end of the article – based on the notion of the educational asymmetry – we very briefly reflect on the theme of the "shrinking state" which we suspect is taking place because the private share of educational funding and provision have been recently increased (Plank & Davis, 2010, p. 304).

THE JUSTIFICATION FOR THE PUBLIC FUNDING OF EDUCATION

The state's dominant role concerning education is related to the modernization of societies which began in Western Europe in the eighteenth century. Modernization includes a complex bundle of factors which, taken together, explain the evolution of the idea of universal public education. This idea of universal education cannot be provided in detail in this article[2]; however, one important general notion must be made: namely, the evolution of modern educational institutions is intertwined with the fact that these institutions are functionally necessary from the point of view of the individual's and society's self-preservation. Self-preservation is, naturally, economically determined and in our modern conditions, defined as the demands of industrialization and developing division of labor. Pre-modern informal and family- and community-based pedagogical arrangements were impotent in fulfilling the functional necessity of promoting the necessary skills in these modern conditions. This can be considered as the economic foundation for the process whereby educational responsibilities were largely transformed from the family to the state.

This is, however, only the one side of the coin. The amount of public expenditure on education can hardly be explained on this basis alone. That is, as the theoreticians of modernity widely and clearly recognized, the modernization process included also notable alienating tendencies. For example, in *The Wealth of Nations* (1776), the father of modern economics, Adam Smith[3] (1723–1790), had a strong interest in public education (see Smith, 1963, Vol. 4, pp. 92, 182–183) not only because he recognized the connection between education and human capital formation and education's function as a screening device (Smith, 1963, Vol. 2, pp. 23–25, 154–157), but also because he recognized the threats that the division of labor presented to the individual's possibilities for living to their full potential, to civic virtues and to the legitimation of the democratic concept of the state. Thus, Smith's analysis of the modern division of labor is interestingly contradictory. On the one hand it was an important source on economic growth but on the other it had a remarkable tendency to reduce human potential into stupidity, weakening the social ties between individuals, and likewise the individual's commitment to common goals and, in the end, endangering the democratic conception of the state because this could hardly be maintained if individuals did not understand the content of the laws they were voting for. So for Smith, the development of the division of labor naturally caused demands for public education but, hand in hand with this development, it also caused pressure on the establishment in terms of the kind of educational institutions that could act as an antidote for the alienating tendencies caused by the division of labor.

Thus, the legitimation of modern educational institutions – not only for Smith but more generally for modern theoreticians – was established. This was not only because of the increasing demands of the economy, but also because of moral and social reasons. To put it shortly, the dominant role of the state in education in modern conditions is also connected to the state's responsibility for cultivating humanity in general. So, public education as an artificially constructed sphere of learning was

not only an answer to the functional necessity of the self-preservation of society but also opened new and wider learning horizons that could not be provided by the pre-modern informal family- and community-based education. The state's dominant role results in the accomplishment of both these tasks.

From this follows, also, that in modern mixed economies the function of educational institutions is necessarily tied to the two different resource-allocation mechanisms: the market mechanism and collective decision making. Collective decision making is needed because the public interests must somehow be expressed. When this collective decision making takes place in the context of a democratic conception of the state, it follows that the resources allocated to education are determined – besides by the market mechanism – by public decisions. To quote another modern theoretician and Smith's contemporary, Jean-Jacques Rousseau (1712–1778): "Public education under rules prescribed by the government and under magistrates established by the sovereign is, then, one of the fundamental maxims of popular or legitime government" (Rousseau, 1997/1755, p. 21). Like Smith, Rousseau places education at the center of his thinking. Rousseau's idea is clearly modern: The state is admitted a large role as decision-making unit concerning education because "Since…each man's own reason is not allowed to be the sole judge of his duties, the education of their children ought even less to be abandoned to their fathers' lights and prejudices…" (Rousseau, 1997, p. 21). What Rousseau outlines here is that the legitimation of the public education depends on the fact that its function is determined by law i.e. by the rules defined in the medium of public use of reason. So the law expresses here, simply, the public interest, and manifests, in this way, the voice of the "older generation", or to use Friedrich Schleiermacher's (1768–1834) expression "what the older generation wants from the younger generation".[4]

To sum up, the democratic concept of the state can be seen as an attempt to deal with the question of educational asymmetry on the generational level. The argument that legitimates governmental action is therefore educative or paternalistic. The younger generation cannot be considered as a responsible decision-making unit because, in Milton Friedman's words: "Freedom is tenable objective only for responsible individuals. We do not believe in freedom to madmen or children" (Friedman, 2002, p. 33; see also pp. 85–86). To put it a bit differently: The capacity to make responsible, rational decisions is a product of education and educational intervention. If we are supposed to be born with this specific capacity we are hardly in need of education and lose the fundamental principle of our discipline.

Having briefly introduced – with the help of the few classical modern theoreticians – the basic explanation for the state's dominant role in education, we can now extend this explanation with recent findings on economic of education. As shown, Adam Smith already pointed out the total benefits of public education, besides addressing, additionally, the side effects of the very fundamental moral and social arguments. The discourse already emphasizes a strong economic rationale for the efficiency of public spending on education. The question of the economic rationale can be extended as follows.

The search for an economic rationale for the public funding of education is troubled by the fact that education is not a purely public good in the sense economists usually define public goods. In order to speak about public goods two conditions must be fulfilled: "Consumption of these goods [public goods] in nonrival: the amount of consumed by one person has no effect on the amounts available for consumption by others. For example, adding more listeners to a radio broadcast does not diminish the value of the service to any of the existing listeners. Consumption of public goods is also non-excludable: once a radio signal is broadcast there is no practical way to exclude additional listeners." (Plank & Davis, 2010, p. 300.) Either of these conditions is fulfilled when speaking about education. First, there is a large (far from zero) marginal cost associated with the education of an additional child and, second, there are no technical difficulties to charge individuals for educational services (Stiglitz, 2000, p. 426; see also Stiglitz, 1974, p. 349; Plank & Davis, 2010, p. 300.) Why then is education so largely publicly funded and not bought and sold in the market-place? The answer is related to market failures, externalities and imperfect information.

First, public education can be legitimated on the grounds of efficiency. When focusing on external (output) efficiency (instead of allocative or input-choice efficiency), it can be said that public education is efficient when the outcomes of education are such that marginal costs equal marginal benefits. Public education is, therefore, said to be functioning efficiently from the point of view of external efficiency if the cost of education meets society's preferences (Belfield, 2000, p. 7).

When relating the observation of the amount of public spending on education to the idea of external efficiency, the above mentioned generational level educational asymmetry can formulated in economic terms as follows: if the educational decision-making is left to the individual entirely, decisions will not be made in a socially optimal way i.e. marginal costs will not succeed in equaling marginal benefits. Indeed, as has been widely documented, there is a *chronic* tendency for individuals to under-invest in their education (see Bishop, 1995, p. 380) in the sense that it is not optimal from the point of view of society.[5] Assuming the truth of this insight, the consequence is that public funding and governmental regulation are needed if individuals are willing to invest less than expected from society. If that's the case, a primary perspective to the external efficiency of public education has to be discussed, namely the human capital approach.

According to the human capital theory, education can be defined as both investment and consumption good. From the investment point of view, its function is to *produce* human capital i.e. the individual's embodied skills above their raw labor ability (Belfield, 2000, p. 1). The starting point of the human capital theory is clearly modern: The economic capabilities of people are not given at birth but, instead, produced in formal schooling (Schultz, 1963, pp. 10–11). Naturally, the idea is not to claim that people do not learn in informal settings but that formal schooling is *specifically* needed in order to transform *economic* capabilities or potentials into skills for the labor market. The hypotheses that constitute human capital theory

can be named, therefore, as the *productivity hypothesis* where a direct causal link between resources invested in education and in the individual's human capital stocks is assumed, or in other words, the theory assumes that there is a strong positive resource effect ("money matters"). Although human capital theory does not explicitly say anything about *how* human capital is *pedagogically* produced *in the educational institutions*, it is tacitly assumed that the skills defining the individual's productivity and, thus, his or her success in the labor market (earnings) are produced in these institutions and are the result of the resource invested in schooling. Consequently, as a macroeconomic implication, when raising the productivity of the labor force in general, it is assumed that education generates economic growth as well. Thus, education has, in this framework, *a productivity-augmenting function*. Although the human capital approach emerged with the influence of the seminal works of Theodor Schultz and Gary Becker, in the early 1960s, the idea is already present for example in Adam Smith's *The Wealth of Nations* and refers moreover to the very traditional function of education as producing the necessary skills needed for the self-preservation of the individual and of society.

Although *prima facie* evidence supporting the productivity hypothesis can be found from almost every developed country (Brewer, Hentschke, & Eide, 2010, p. 4), there are, in human capital orthodoxy, certain and widely-recognized reductionist features that can be selectively addressed here.[6] For example, the answer to the question how education contributes to the national productivity has been explored at various times. Even solutions to determine the rate of return of public expenditure on education have been provided. But solid evidence which would confirm an unbiased causal effect of education and training on individual earnings – according to the productivity hypothesis – could only be provided with limitations (c.f. Hummelsheim & Timmermann, 2010). There are several problems to consider. One prominent problem is the so-called "ability bias" summed up as "[…] the issue of whether the higher earnings that are observed for better educated or more-trained workers are *caused* by their higher education or training, or whether individuals with greater earning capacity and ability choose to acquire more education or training" (Blundel, Dearden, Meghir, & Sianesi, 1999, p. 4).

Focusing on the productivity hypothesis of human capital theory one has also to consider that there are certain determinable factors which influence human capital investment: The interest rates, the age of the individual, the costs of education, and the wage differential between high school and college graduates. Only in consideration of these factors can realistic empirical models on this causal connection between schooling and earnings be proposed. Indeed we know from an educational perspective, that formal learning enlarges knowledge, skills, abilities of individuals but doesn't' necessarily lead to more productivity (as employees, consumers or investors etc.).

The human capital theory has been criticized many times also with substantial reason. For example, Schultz's neo-classical conception of the labor market was heterodox in the sense that the segmentation of the labor market was not taken into

account (see Carnoy, 1995, p. 2). The segmented labor market theory states that the labor market is divided into two separate submarkets: the "primary" and the "secondary" segments. The productivity hypothesis is only applicable for the primary market. Wage determination differs significantly between sectors. Additional education is only rewarded in primary but not in secondary jobs (Hummelsheim &Timmerman, 2010).

Human capital theory provides a strong economic rationale for investment in public education. This has less to do with education's market benefits to earnings and growth but than its positive externalities or "neighborhood effects" (Friedman, 2002, pp. 85–86). Indeed, without these, one can always claim that if the benefits of education are substantially private, should education not, then, also be privately funded?

The term "externalities" refers to the consequences or "side-effects" of economic activity outside of the decision-making unit (unrelated third parties) and, thus, they refer to the market failures, the inability to allocate resources efficiently. So, when speaking about externalities, these are the kind of effects that decision-making units do not take into account when making economic decisions. Externalities can be positive or negative, e.g. pollution can be seen as an example of the negative externality of industry. There is a wide consensus that educational externalities are substantially positive, though agreement is not always reached on their magnitude. Educational externalities can be defined as the "public benefits of education that spill over to benefit others in the society, including others in future generations" (McMahon, 2010, p. 68; see also Brewer, Hentschke, & Eide, 2010, p. 4). Thus, human capital theory not only claims that there is a strong positive relationship between the level of education and market benefits (earnings and economic growth) but also that there exists a strong positive relationship between the level of education and external social benefits, for example, the development of civic institutions and civic participation, reduction of poverty, lower crime rates and environmental sustainability. These externalities can largely be defined as a social capital that a well-functioning society and economy presupposes.[7] Established externalities in a society legitimate government intervention and, in addition, if educational externalities are substantially positive it gives a strong rationale for public funding of education in general.

If we add to this the notion of endogenous growth, the economic rationale for public funding of education becomes even more persuasive. One reductionist feature of human capital orthodoxy was that it was committed to the exogenous growth model. So, for example for Schultz, the economic growth process was modeled so that the technologies were given to the economic units from the *outside* of the units. When reflected in the idea of learning in the framework of exogenous growth model, it means that human capital itself does not have any role in creating new technologies or new practices but, rather, refers to the capacity to adapt rapid changes in economy (adjusting the economic disequilibrium) and to adopt new technologies. So, when the process of learning and the sources of productivity increasingly are modeled we

arrive at the traditional production function approach, where learning is understood as a product of exogenous factors outside of learning and the production process. So, for Schultz (and for Becker) human capital referred very widely to the individual's pragmatic capability to adapt to the external rapid changes in economy and adopt new technologies rapidly.[8] In human capital orthodoxy, human capital plays no role in generating new technologies and practices (Carnoy, 1995, pp. 1–7).

According to the endogenous growth model, the productivity increase is understood as a self-generating process. With the help of this model, it is possible to understand that the production process may be more in harmony with the findings of modern learning theories in the sense that learning and increase of productivity depends on specific activities inside the economic units, whether school, working place or economic system as a whole. According to this view, then, education increases the innovative capacity of the economy and, thus, human capital can be defined more broadly than in human capital orthodoxy, not only as the capacity to adapt to the external changes, but also as a creative source of new technologies and practices. Because the starting point in the endogenous growth model is that it situates education within the production process, claiming that the process itself generates new knowledge, new technologies and practices, it shifts the central focus away from external inputs i.e. educational production modeled by the production function to action-based learning (Harris, 1995). Indeed, if we are to speak about the new knowledge and innovations as a products of learning, these are by definition something that cannot fully anticipate with the assembly-line model of production.

So, if the public educational institutions are constructed in a way that their pedagogical arrangements (instead of pure assembly-line type of educational production) stimulate the self-activity of learners, the educational investment may generate new knowledge, technological innovations and development through creating not only more adaptable but also more creative workers. It will also promote scientific research and development that produces benefits that spill over into nations and their populations (see Levin, 2012b, p. 10). Although these kinds of educational outcomes are commonly expected from the institutions of tertiary education, it is not plausible from the educational point of view to assume that the ideas of the self-activity of the learners and the creative nature of the learning process is restricted to these institutions while other educational institutions concentrate on the dissemination of knowledge (c.f. Johnes, 1993, pp. 140–160). Rather, from the educational point of view it can be claimed that the capacity to act creatively must be cultivated from the start – and if not, then there is always a danger that these capacities may be destroyed before students reach tertiary education.

The endogenous growth model naturally has implications also for the workplace and to the question of how we explain the relations between education, productivity and earnings. Instead of assuming a direct link between these – as was done by Schultz – the answer is far more complex. Namely, if the increase of productivity is endogenous in nature, then the crucial challenge in the workplace is not only how to utilize pre-established skills but how to arrange working conditions so that

they promote the further actualization of the productivity potential of the workers. The implication of this is that the economic payoff for education (the residual that fascinated Schultz and his contemporaries) may be difficult to determine because this is not only technologically conditioned but largely influenced by other factors in the working place (e.g. information, ideology, political power, citizenship rights) and the organization's willingness to innovate (Carnoy, 1995, p. 3). Although the endogenous growth model may blur the economic value of education – the argument made in human capital orthodoxy, the crucial notion here is, still, that public education has a fundamentally important role in creating competent actors of the new economy (ibid, p. 6; Levin, 2012b, p. 10).

The second perspective to the external efficiency of education is to define education as a screening device. This approach includes somewhat different theoretical formulations such as filter theory (e.g. Arrow, 1973), screening theory (e.g. Stiglitz, 1975) and signaling theory (Spence, 1973). In spite of the possible differences between these theories, the common feature shared by them all is that they challenge the *productivity hypothesis* constitutive to the human capital approach (Groot & Hartog, 1995, p. 34). According to screening theories the function of schooling is, instead, *productivity identification*. This is to say that instead of producing the skills that determine the individual's success in labor markets, education produces the *information* of the individual's potential productivity. The assumption of neoclassical human capital orthodoxy that there are direct links between resources invested in education, productivity and wages is questioned. In this approach, the external efficiency of education rests on the assumption that employers can use the information of the individuals produced by educational institutions when allocating labor force. Thus, education is here not a direct proof of the individual's productivity but may indicate it. Moreover, in order to speak about the *productivity identification* function of education, it is assumed that there are differences between an individual's natural or pre-established abilities that are revealed in formal education. Because of this, so to say, "student centered principle", screening theories do not give as strong efficiency grounds for public funding of education as the human capital approach. The positive resource effect, i.e. the direct causal link between resources invested in education and human capital assumed in human capital theory is, so to speak, filtered through the student's natural abilities and there is, therefore, always a possibility of a waste of resources if the individual is not naturally productive. Or in other words, the education (when functioning less than perfect screening mechanism) of the less productive individuals may entail negative spillovers for more productive individuals (Gradstein, Justman, & Maier, 2005, p. 6). As well as the productivity augmenting function, the productivity identification function also can be seen as a very traditional function of educational institutions, determining the division of labor in society.

What is important to notice is that screening theories emerged in the 1970s as a part of a larger economic framework or paradigm, namely information economics. The underlining idea and the motivational basis of information economics was that the

"real world economies" and their various states of equilibrium are poorly explained in the framework of the efficient markets (and thus in human capital orthodoxy) and, because of this, their policy-implications remained more or less impotent to solve the real world economic problems. One might ask, indeed, if the "real world economic" imbalances (e.g. unemployment or poverty) are more or less *systematic features* of the economy *but* are abstracted away from the *theory of economy*, what kind of technical-normative perspective can theory then offer? So, instead of taking the ideal of the efficient market as a point of departure, information economics recognizes that there could exist in the real world economies massive market failures caused especially by imperfect information (see Stiglitz, 1975).

This general notion demonstrates perhaps the differences between human capital approach and screening theories, which brings us to the resource allocation to education on efficiency grounds. Namely, if individual differences are omitted from the *theory of the economics of education*, it is perhaps difficult to explain the hierarchical structure of educational systems and their task to guide individuals into the right occupations (Stiglitz, 1975, p. 294). For example, if the principle of "student centeredness" is not taken into account, and admitted, by Stiglitz's words (ibid, 292), that: "some people would gain little from a Ph.D. program in economics, but would certainly benefit greatly from a course of automobile mechanics, and conversely for other individuals", there is no possibility to determine efficient resource allocation. When, instead, the information aspect (student's natural abilities) is taken into account, efficient resource allocation becomes possible and, naturally, the social benefits of education in this model are generated through the fact that resources are not wasted.

The question about natural or pre-established abilities brings us to a very traditional problem of educational theory worth mentioning. The problem can be formulated as follows. If the productivity of the individual is more than a product of education (in a sense of the adult's or teacher's intentional educational efforts) a personal feature, why are we, then, in need of education and educational institutions? And if education does not alter the student's productivity capacities, why then maintain costly public educational institutions? Do screening theories include, so to say, this kind of anti-educational undertone? This is, of course, too simple a conclusion and might have problematic implications for policy.

In order to answer these issues, we must first be aware that screening theoreticians do not deny absolutely the possibility of a positive resource effect assumed in human capital theory. As already mentioned above, the resource effect is, so to speak, filtered through individual abilities, so that there can be (or not be) positive resource effects. Rather, they are introducing, we claim, a complementary element to the definition of the most traditional function of education i.e. producing the necessary skills needed in for an economy. For example, Arrow (1973, p. 194) is clear enough in this respect: "Perhaps I should make clear that I personally do not believe that higher education performs only a screening purpose…The screening or filter theory of higher education, as I shall call it, is distinct from the productivity-adding human

capital theory but is not in total contradiction to it." Stiglitz (1975, p. 294) formulate the same idea as follows: "… the reason that the school system is the major screening institution in our society is that this information is a natural by-product of its principal activity of providing knowledge (skills) and guiding individuals into the right occupations." Beyond this, Stiglitz constructs an even stronger – and, from the educational point of view, extremely important hypothesis that is worth quoting here:

> "…the more educational institutions perform their principal functions, the more screening that is produced as a by-product. The more accurately it is able to place individuals into the right "slots," i.e. ascertain their comparative abilities the more accurately it must ascertain the individual's absolute abilities. The more knowledge it attempts to impart, the more it is able to "separate men from the boys". At the extreme, if it tried to teach nothing, there would be no basis for performance testing, and there would similarly be no basis on which the self-screening mechanisms could be based. (Stiglitz 1975, p. 294)

As these words eloquently express, the anti-pedagogical attitude does not characterize screening theories. Rather, when the productivity identification function is interpreted as a by-product of the productivity augmentation function, it establishes, so to speak, a more sophisticated description of the function of educational institutions. This idea can be elaborated as follows.

As in the case of human capital theory, the starting point of screening theories is modern. Educational institutions, not families, are understood as functional units of screening. Educational institutions have, therefore, an essential function as mediator between families and economy – not only in the sense of producing the necessary skills but channeling the younger generation to suitable occupations according their natural facilities and abilities; to help, so to speak, find a suitable place in the society and in relation to the division of labor.

Second, when speaking about natural or pre-established abilities, these can be understood only in the sense of potentials that are revealed in the learning processes located in educational institutions. Stiglitz refers to this screening mechanism as "self-screening" i.e. "helping the individual find out himself" (Stiglitz, 1975, p. 292). So, the idea that natural or pre-established abilities do matter, does not mean that the learning processes follow a genetically-determined trajectory but rather that the "process of finding himself" is intrinsically located to the educational interaction and depends largely on the content of learning (i.e. there is something objective in relation to which the subject can find himself) and teacher's activity. As Stiglitz's words clearly express, screening can take place only in relation to the school's basic task, i.e. teaching skills. Without this screening, it is inevitably imperfect. To put it in other words: the more that is educationally demanded, more it is screened. From this follows that not only from the point of view of the educational institutions' internal efficiency but also from the point of view of whole economy's efficiency the crucial determinant is that schools maintain high standards of learning because the efficiency

of the economy is based on the fact that the right people are doing the right work. Naturally, when educational institutions perform their functions as described it not only helps the economy to function more efficiently but also helps individuals to live a more satisfying life with respect to their full potentials. Lowering the standards of learning leads naturally, directly to the opposite conclusion.

Screening theories explain also the distribution of income differently than does human capital theory. Namely, when the latter does not take individual differences into account, the distribution of incomes is explained as a result of the amount of education. So, if there are two individuals who have the same level of education, their productivity must be assumed to be the same, and therefore their earnings must naturally be identical as well. The policy implication following on from this is that in order to equalize the existing inequalities in income distribution, we have to guarantee – with the help of the public funding – equal educational opportunities (of course in accordance to the basic human rights) i.e. universal access to education in spite of the socio-economic and demographic factors. This is exactly what Schultz (1961, p. 14) recommends because according to the human capital theory inequalities in income distribution are the outcome of underinvestment in education. Of course Schultz's reasoning is easy to accept on equity grounds. Public education can have a significant role in promoting more equal income distribution in the next generation i.e. when the tax revenues are used for educational investment it is an effective way of redistributing income from the rich to the poor. The crucial notion is, however, that education itself, according to the human capital theory, does not generate inequality of income between individuals.

When the screening effect is added to this reasoning, the picture shifts. Of course screening theoreticians are committed to the same fundamental moral values and equality principle mentioned above. But if there are differences between individuals with respect to their natural abilities, and these are revealed in educational institutions, then, education also increases the inequality of income (Stiglitz, 1975, p. 294). To put it differently, according to screening theory education does not equalize income inequalities but, instead, produces these. This has important policy implications, because there can, therefore, be a tradeoff between efficiency and equity (ibid., p. 299).

If the former points of view value schooling in an instrumental sense – either as an investment on productivity or as a signal of it – and define the economic value of education from the efficiency point of view, the most traditional way to define schooling in economic terms is, of course, to define it as a consumption good i.e. as a value itself without expectation of increased future incomes or economic growth. As already mentioned, in the case of education the investment point of view is interlinked with the consumption point of view, i.e. education is both, an investment and consumption good. Why this is important to notice is, as e.g. Schultz emphasized, that if the consumption aspect of education is omitted then the real value of education will be seriously underestimated.

Two points of view can be distinguished here. From the individual point of view, the consumption benefits of education may be defined as "the non-monetary

returns accruing from education to the individual throughout his or her lifespan" (McMahon, 1995, p. 168). Thus, consumption benefits includes not only pure current consumption effects, such as an enjoyment and meaningfulness of learning itself (although studying is hard work and learning can even be painful because it changes an individual's preferences and, thus, force the individual to redefine her world views), but also such effects as education's contribution to better health (see Muennig, 2010, pp. 80–87), effects on family life, consumption behavior and affective attributes created by education (McMahon, 1995, pp. 168–171). The consumption benefits of education may naturally have considerable economic significance. If education is, as for example Muennig (2010) states, a major determinant of health, then investment in education may lower significantly the costs of the health sector.

From the state's point of view, the consumption aspect of education can be defined as resourcing education without directly defining it in terms of a market value. Naturally, this point of view is connected to the fundamental values of modern democracies – as seen above – where a legitimation of the educational system is not solely determined by labor markets but more generally by the fact that the legitimation of the educational system includes the idea of allowing each individual to cultivate and reach their full potential. This must be considered in addition to the direct market benefits.[9]

As a matter of fact, the question of over-education must be approached from this point of view. The term over-education refers to the judgment, that an individual or society has more education than is required or desirable (Bishop, 1995, p. 375). This can be considered to imply to the inefficiency of educational institutions just as does the term under-education but directly in the opposite sense. Economists of education, at least quite usually, when reflecting the causes of over-education give also a directly opposite explanation. As has been seen in this section, the term under-education referred to the fact that if the economic decisions concerning education is left to the parents only, it leads to the situation that can be called "under-education", which and that legitimates governmental interventions. The cause of over-education, on the other hand, is often claimed to be the result of the government's overly aggressive interventions.

The most common way to approach over-education is to analyze it as a question of a mismatch between a job and schooling. Therefore, when speaking about over-education the idea is, obviously, that the amount of schooling exceeds the occupational requirements (or e.g. rates of return of a certain educational level have fallen below their previous level, historically observed). The basic problem here is that if we are limiting our perspective purely on the mismatch between school and occupation, and attempting to define an optimal external efficiency of schooling from this point of view, we are bound to meet serious problems with respect to the total benefits of education. As Bishop (1995, p. 381) aptly states: "Surely better jobs are not the only reason for getting an education. What about the desires to appreciate literature better or to make a discovery that will improve the lives of others?" So, when defining over-education from the point of view of occupational needs, it might

be claimed that not only the externalities of education but also the warnings about alienation given, for example, by Adam Smith, are forgotten. However, the concern about "overly aggressive governmental actions" is, of course, justified and leads us to the theme of the provision of education.

ABOUT THE PROVISION OF EDUCATION

Although education is in contemporary societies largely publicly provided and a strong economic rationale can be found to support public funding of education, this does not directly justify the claim that education must be publicly provided. There is no room in the present article to discuss educational privatization in its all forms and complexity (see Levin & Belfield, 2010, pp. 306–310). All we shall do here is focus, briefly and at a general level, on the issue relevant to our topic, namely privatization of the provision of public schooling and educational asymmetry. From this point of view the privatization of education means a claim that the governmental activities are too excessive, and because of this, the emphasis of educational decision-making must be transferred to the parents. According to this argument, the state is, so to speak, "educating" or practicing its paternalistic concerns "too much".

The idea of publicly funded private education (educational vouchers) is commonly associated with Milton Friedman's libertarianism. It is easy to see how Friedman, in his *Capitalism and Freedom* (2002/1962), wrestles with a very fundamental problem of modernity: How to find a resolution between the ideas of individual freedom and social determination. Milton understands the concept of freedom in its liberalistic sense as "a lack of the external impediments". From this point of view, the governmental interventions and the role of the state in general become naturally problematic not only in the educational sphere but also in social life general. Friedman is not advocating anarchist societal reforms: he recognizes the important functions of government for e.g. maintain the law and order, property rights and the rules of the economic game. So, his idea is not to destroy the state but rather to put its activities under a rational check with respect to the freedom of its individuals i.e. not to eliminate all governmental regulation but to eliminate the regulation that is not well-founded from the point of view of the freedom of individuals (with respect to his understanding of the notion of freedom). The target of his criticism are the different forms of collectivisms – communism, socialism and welfare state – typical of the post-war era. As history has proven, his conclusions have been, and probably continue to be, a matter of wide political debate. Beside these moral and political dimensions, Friedman's argument for privatization includes strong economic expectations for reducing government spending without reducing quality of education (see Carnoy, 1998, p. 309). Friedman's reasoning about educational provision goes as follows.

First, the underlying claim is that the public sector, by definition, is functioning inefficiently. The critical point of reference of this claim is the theory of the effective market. Thus, when identifying the sources of inefficiency of public schooling,

different types of government failures are introduced: for example, the lack of competition, which is the principal-agent problem typical of public institutions and union activity for establishing a too uniform and rigid (i.e. not performance- based) teacher salaries. In sum and to put it pointedly, the basic idea is that public schooling is functioning inefficiently because it is not functioning like the economic units in the private sector.

Second, in this microeconomic framework the responsible and operative decision-making unit is the family, prior to the state. Thus, in contrast to excessive governmental regulation, the sphere of parental consumption and investment choices must be widened *as much as possible*. Friedman does not reject entirely governmental regulation but states that its role must be minimal in order that parental choice can be extended as much as possible: "Government could require a minimum level of schooling financed by giving parents vouchers redeemable for a specific maximum sum per child per year if spent on "approved" educational services" (Friedman, 2002, p. 89). These "approved" educational services could be rendered either for-profit enterprises or non-profit institutions; the government's role is then limited to ensuring minimum common content in educational programs. The word "approved" is related to the fact that the state regulates the "rules of the game" so that the educational services meet the minimum requirements of homogeneity.

The present dominant role of the state is understood by Friedman as an historical relic. In his criticism of contemporary (American) public education, Friedman admits that what was necessary at one time is not necessarily so any more. The extensive role of the government in education, or in other words, the nationalization of education, has an historical explanation. Namely, what was desirable a century ago was not so much promotion of diversity but promoting conformity: that is, creating a common set of values and to bring the "great streams of immigrants" into the mainstream of society (Friedman, 2002, p. 96). So, when the young nation was building its identity, public education functioned as a "melting pot", promoting the social cohesion that was necessary for a well-functioning society and economy. According to Friedman, this argument is, however, not valid to the same extent before our contemporary societal problems, where a problem is no longer a lack of conformity but, instead, an excess of conformity. While still functioning as "melting pots", educational institutions remain impotent in the face of the most fundamental task of the contemporary societies: namely, promoting individual freedom and plurality. The privatization of the school provision was one answer to this new societal challenge. Thus, "in terms of effect, denationalization of schooling would widen the range of choice available to parents" (Friedman, 2002, p. 91). In this way, Friedman establishes his market-oriented argument also in relation to history and, at least implicitly, claims it can be assumed that the suggested school reform cannot be understood as a universal rule, but rather is dependent on the historical factors which the nation is confronting.

However, this argument needs further qualification: in order that families can, in the end, be defined as responsible decision-making units, their decisions must be

assumed to be rational in the sense of succeeding in fulfilling society's expectations – not only with respect to *efficiency* but also from the point of view of *equity* and *social cohesion* (see Levin & Belfield, 2004, 2010) Of course it might not be possible to define an optimum where all these expectations are met without trade-offs, but the fundamental point is that in order to establish school reform on the basis of parental choice – and these choices are not rational in the above sense – then the problem of adverse selection may occur i.e. that the effect of the parental choices is so high that quality educational units could even disappear from the educational markets.

Friedman deals with all these principles. The main source of inefficiency is obviously in the near-monopolistic public education, the absence of competition between schools, so that schools have no incentive to act cost-efficiently and to produce innovations and improvements. The increase of parental choice operates in a way that the decisions of families give important market signals to the educational institutions and, thus, a strong incentive to improve the quality of education; in other words, to create a more "client-oriented education". Without these signals, parents can express their views only through slow and cumbersome political channels (Friedman, 2002, p. 91). So, this neo-classical theory of public choice is, in a way, an alternative answer beside the political decision-making to the question of how society's preferences can be expressed (see Johnes, 1993, p. 68). Also, because parental feedback is received much quicker this way compared to the slow political procedure, school units become more flexible in their reactions to economic flux. An additional explanation for why the theory of public choice applied to the economics of education raised attention in the 1970s and 1980s was because of disappointment with the production function approach for raising the educational productivity of public schooling. In this form of school reform the main focus is not to establish a statistical relationship between educational resources and measures of student outcomes, but simply to create markets of education and foster competition between schools (see Levin, 1995).

According to Friedman, increasing parental choice will correspondingly improve the equity of the educational system and promote social cohesion by diminishing class distinctions. This is because under the present unequal conditions where parents are not able to choose their children's education, a stratification of residential areas restricts the intermingling of children from different backgrounds. From this follows the assertion: "Our present school system, far from equalizing opportunity, very likely does the opposite. It makes it all the harder for the exceptional few – and it is they who are the hope of the future – to rise above the poverty of their initial state." (Friedman, 1992, pp. 92–93).[10]

At the theoretical level, Friedman raises extremely important questions about governmental actions. Surely the freedom of the individual is a fundamental value in modern democracies, which cannot be sacrificed in the face of aggressive governmental actions. Also, inefficiencies can exist in all the public sector institutions as, for example, soft budget constraint, absence of competition, principal-agent problems and risk aversion (Stiglitz, 2000, pp. 200–206). Because public institutions

are in general publicly funded, it is perfectly justified also to demand that the resources be used efficiently. But it must be noted that the market and public choice solution presupposes certain conditions in order for it to be even possible to expect the promised outcomes. First, there must be equal access for every individual to the educational markets. Second, information on which parental choices are based must be adequate. The empirical evidence does not entirely support the idea that these school reforms fulfill their promises.

From the point of view of effectiveness, there is no persuasive evidence that private schooling is more effective than public schooling; and the evidence of the private schools' cost-effectiveness is mixed (Carnoy, 1995, p. 6; 1998, p. 335; Goldhaber, 1996; Zimmer & Bettinger, 2010, pp. 343–349). At most, there is some limited evidence that competition itself affects school performance and if this is found, this can be probably be explained with the selection effect (Payne, 2010, pp. 323–327). Moreover, the empirical findings suggest that there can be significant tradeoffs between efficiency, equity and social cohesion. This is because, first, the increased possibilities for choosing between different school alternatives do not necessarily benefit every income group: "Less educated, lower-income parents have less physical access to private alternatives because private schools tend to locate in larger cities" (Carnoy, 1998, p. 335). Obviously, it can be assumed, educational enterprises are seeking larger markets and this might weaken the educational possibilities in rural areas. So it seems that owing to demographic factors equal access to the educational markets may be difficult to achieve. The consequences of privatization for social cohesion are widely reported to be negative. This is because in many cases parents make their choices on socio-economic or even racist grounds: "Better educated parents also tend to move their children out of schools with significant enrollment of lower-income, lower academically performing pupils when choice exists" (Carnoy, 1998, p. 335; see also Chakrabarti & Roy, 2010, p. 340). Social cohesion can hardly be maintained and promoted if the parents' decisions are towards segregation.

Moreover, when it comes to the question of information, there are two questions: Is there adequate information available and if is so, does it matter? (Chakrabarti & Roy, 2010, p. 340). Remembering the critique of the efficient market paradigm from the point of view of information economics, it can be said, that in Friedman's reasoning the question of information is not problematized. This is because in the framework of the efficient market, the starting point is that there is adequate information available i.e. when parent's choices are modeled in this framework, it is tacitly assumed that they have adequate information about different school alternatives, their pedagogical arrangements, and effectiveness, and so on.

Parents have only limited possibilities for monitoring educational arrangements and services in schools; and if relatively adequate information is available, it seems that parents can utilize it very differently. When the distribution of information is related to socio-economic factors, it has been shown, for example, that less-educated parents have less information than more-educated parents. When it comes to the utilization of the information, the evidence is mixed. There are cases where more

transparent information has resulted in school choices which have caused significant increases in children's learning test-scores. On the other hand, as already mentioned, parents do not necessarily make school choices on academic criteria alone, but also, for example, on socio-economic factors (Chakrabarti & Roy, 2010, p. 340).

This short summary of the research results concerning the privatization of public provision of education may be proof, at least, that the total benefits of these reforms have remained modest and have been in certain respects even negative. This is to say that the near-monopolistic public provision of education does not necessarily lead to the kind of inefficiencies Friedman and the advocates of privatization have often claimed. In addition, the public provision of education can still be rationalized by a number of moral and social arguments. It seems that the public provision of schooling remains the solution that has a very small risk in failing to fulfill the fundamental demands on equity and social cohesion (see Gradstein, Justman, & Meir, 2005, pp. 8–9).

CONCLUSION

As seen, besides the social and moral justification for the public funding of education, there can also be a strong economic rationale. The state's dominant role in educational provision, as shown above, evolved as part of a modernization process. Educational responsibility was transferred from the family to the state partly because of the demands of the division of labor. On the other hand, the artificial learning environments that were created allowed the opening up of new and wider learning horizons than would otherwise have been possible in family and community-based informal educational settings. Moreover, when the transformation of educational responsibility is interpreted in the context of the democratic concept of state, it is assumed that the public interests or "What the older generation wants from the younger" in education is expressed through democratic processes.

Naturally, possible tensions arise between governmental regulation and parental wishes and there is always a potential danger that governmental actions on educational issues are too dominating. Neglecting parental perceptions on education might go counter to a fundamental value of modern societies, namely the freedom of individuals. From this point of view, Milton Friedman establishes his libertarian argument for public school reform based on educational markets and parental choice. This solution deals with the generational-educational asymmetry so that instead of slow political processes, public interests are expressed through parental choices in the established educational market environment. So, it is not so much the state but parents who can be considered "the responsible decision making unit" in education. Besides the moral and political aspects, Friedman's school reform attempts to justify itself on efficiency and equity grounds. Many of the potential inefficiencies of the public sector are identified and expected to be solved by the privatization of public schooling.

What makes the theoretical evaluation of these basic alternatives difficult is, of course, that they are not absolute solutions. When it comes to the funding of

education, the case is that although public education is substantially publicly funded there is, still, a private financial component involved mostly in the form of the household – but also private business- and non-profit organization expenditures. In terms of the provision of education there is, in most cases, always a sphere of parental choice in publicly provided education (e.g. related to school choice and certain extent to curriculum and pedagogical arrangements) and also, in private provision of schooling, there is always to a certain extent governmental regulation (related e.g. the curriculum, achievement tests). Thus, the question is not necessarily to make an absolute choice because, naturally, governmental and market failures can both exist. Also, when for example educational production is considered, it is worth noting that this is inevitably a joint production between families and schools, i.e. it is a production process with a mixture of public and private components. Moreover, the decisions of the provision of education are related to many empirical factors, and this means, that some solution can work in one place but not in another. So, when the public-private question – related both in funding and provision – is considered, it must be approached in relative terms.

There are at least two important challenges related to this topic. First: how are the public interests expressed? Governmental failures may not be sufficient reason to abandon democratic decision making. As Bishop points out: "Surely it is possible for government to make mistakes. But how else is a society to make collective value judgments regarding the importance of spillovers such as discoveries, innovations and political, religious, and racial tolerance – other than through democratic political institutions?" (Bishop, 1995, p. 381). The question of how public interests are expressed might be more of a political than an economic question and, thus, improving democratic participation will be a question of political theory. Second: if there exists private alternatives to the public provision of schooling, there may then be enough evidence to claim that the existence of market failures must be taken seriously. This means that if the sphere of educational markets and parental choice is relatively increased, the possible information asymmetries and an equal access to the markets must, somehow, be controlled. Otherwise, adverse selection can occur. This means that even this aforementioned solution presupposes governmental regulation on a larger scale than Friedman was willing to admit.

The recent trend in the growing share of the private funding and provision of schooling has raised the question of whether the traditional role of the state is continuously changing. A trend is particularly noticeable in higher education: "Between 2000 and 2011 the average share of public funding for tertiary institutions decreased from 73.7% in 2000 to 69.1% in 2005 and then slightly to 68.3% in 2011" (OECD, 2014, 54). The expression of the "shrinking state" compacts this trend (see Plank & Davis, 2010, p. 304). Without giving a definite answer to this question, it can be said, as already mentioned above, that the state will supposedly have a significant role in education also in the future, both in funding and in the provision of education. When it comes to the question whether the decrease of the public share of educational funding has a solid economic justification, this will depend on how

adequately the social benefits of education are estimated. If the social benefits are, for example, underestimated, then there is a risk that educational funding will emphasize the relatively larger share of private funding that would be optimal from society's point of view. Moreover, it might be worth pondering that if the expression of the "shrinking state" refers to the pre-modern family and community-based educational arrangements, can the traditional tasks of public education be fulfilled? After all, publicly provided education as an artificially constructed learning environment has not only fulfilled the demands arising from the division of labor but also opened up much wider learning horizons than would otherwise have been possible.

In this article educational asymmetry has been dealt with at a generational level. Although in this article some notions on the microeconomics of education have been made, further steps are also possible. Namely, when one deals with the problem of educational production, it must be "looked into the black box" (Carnoy, 1995, pp. 5–6; Zimmer & Bettinger, 2010, p. 348) and establish possible school reforms in terms of the theory of educational interaction. Naturally this interaction is constituted by the asymmetrical relationship between the educator and the pupil. From this vantage point, it might be possible, for example, on well-established grounds to claim that the teaching-learning phenomena cannot totally be technologically modeled,[11] or it might be possible to give an explanation, for example, why increased competition has had so limited an effect on students learning results and so on. But this will be the subject matter of another study.

NOTES

1 In 2014 the exact figures are 84% in total and 92% for primary, secondary non tertiary education (OECD, 2014). In developing countries the public share is generally lower but still substantial.

2 The informative analysis of the evolution of public education has been given by Gradstein, Justman, and Meier (2005). See also the article *A modern Idea of the School* in this volume.

3 We are taking some terminological liberties here. Namely, Smith does not use the term alienation, but this term describes very precisely his characterizations of the "side-effects" of the division of labor. Although it was Marx who popularized this idea, the first modern theory of alienation was introduced by Rousseau and the idea can be found also e.g. from Kant and Hegel (either of these cannot be labeled philosophically or economically as Marxian). Alienation refers, in short, to the loss of freedom (in the sense of autonomy) i.e. to the phenomena where a subject is defining his/her existence solely based on the expectations outside him/herself.

4 According to Schleiermacher this question is the most fundamental in the modern theory of education.

5 We can assume, of course, that the phenomenon of over-education is another case of external inefficiency. We shall return to this later.

6 These are informatively pointed out by Carnoy (1995). See also Blaug (1987)

7 One commonly-heard critique of neo-classical economics is that the significance of social relations is abstracted away from its definition of human action. From the social capital theory point of view, the productivity of the individual and society depends on, beside physical and human capital, the following factors: social capital, i.e. the quality of its social structures, e.g. on trustworthiness of the social environment (actual obligations are held and will be repaid in future); information that exists in social relations (lowering information costs); and norms and effective sanctions (promoting social cohesion by rewarding e.g. the altruistic actions and punishing criminality) (Coleman, 1988, pp. 98–105). Also, Bourdieu (1983) tried to extend the traditional human capital interpretation. For

him capital is not only limited to an economic reading of the term. Human capital is in his sense the sum of all contemporary and potential resources. Besides economic and social capital, Bourdieu also mentions cultural capital. Cultural capital includes/consists of all formal educational qualifications, values and norms acquired through education which shape the "habitus" of a person (Rauschenbach, 2004, p. 314). Bourdieu provides social criticism to prove that social inequality is not only based on money but on cultural and social factors. These together cause the reproduction of social distinctions.

[8] When human capital is defined as skills embodied in an individual, it must be remembered that human capital theorists do not speak about any specific, strictly defined skills. For them, the human capital concept refers rather to a combination of both cognitive and non-cognitive skills. Why this is worth mentioning is that human capital theory does not necessarily legitimate some recent trends in educational policy where the great emphasis is laid on cognitive faculties measured by standardized tests (see Levin, 2012a). To what extent cognitive skills determine individual earnings, distribution of incomes, and economic growth is a matter of discussion (see Hanushek & Woessmann, 2008, 2010; Levin, 2012a).

[9] Levin's article on this book is a good example where the total benefits of education have been attempted to take into account.

[10] What is said here is concerned mostly with primary and secondary education. Friedman construes different arguments for schooling at college and university level and for vocational and professional schooling. What comes to the first, Friedman justifies public expenditures "as means of training youngsters for citizenship and community leadership" (Friedman, 2002, p. 99). Historically speaking, the traditional function of a university education has been (beside research of course), to educate the "elite" in order to satisfy the growing demands of the bureaucrat labor force (see Gradstein, Justman, & Meier, 2005, pp. 11–28). In the case of vocational and professional schooling, according to Friedman, there are no such external benefits as in general education for justification of public funding has on solid grounds. The benefits of this level of education are, rather, direct private market benefits and therefore there is strong justification for private funding of this education.

[11] See Timmerman's article in this book, especially his mention about the" peculiarities of educational production".

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DIETER TIMMERMANN

9. PRODUCTIVITY, EFFECTIVENESS, EFFICIENCY BASIC CONCEPTS OF THE ECONOMICS OF EDUCATION

PRELIMINARY REMARK

Looking at educational institutions from the viewpoint of the Economics of Education, i. e. looking at schools or universities or institutions of adult learning, we can examine a bundle of different objects, processes or actions by returning to different economic concepts and theories. In this paper, I will not write about financing education or steering questions or about issues of autonomy and competition in education. Instead, I want to make clear the distinction between three eminent economic concepts, namely the relevance of the terms productivity, effectiveness (or effectivity or efficacy) and efficiency. These are concepts which are not well understood by non-economists, in particular educators or students and teaching personnel in education sciences. I will start with the concept of productivity and explain its meaning by taking examples from the world of production economy. At the same time, it will become apparent that a number of fundamental aspects must be examined and clarified, namely perspectives and the levels and object of observation.

THE CONCEPT OF PRODUCTIVITY

Mnemonic 1: Productivity measures the ratio between the quantities of outputs or performances of a certain quality on the one hand and the input quantities of factors of production of a certain quality (also called resources) on the other. The last are used to produce the performed output quantities during a specified time frame usually called period t, which may be a week, a month, a year or any meaningful time unit.

1. The general formula is: Productivity = Output / Input $\rightarrow$ P = O / I
2. In relation to the kinds of input the distinction is made between labour input, capital input and factor input.

Labour Productivity

Essentially, labour productivity is a physical measure (!), and it relates the labour output which has been performed within a certain period of time t and which may

P. Siljander et al. (Eds.), Schools in Transition, 137–159.

be industry products, consumer goods or services to the number of workers or employees who have produced the outputs in period t. As an alternative expression, the output can be related to the number of labour hours which the workers or employees have required in order to produce the products, goods or services. It is common to express the productivity measured in terms of time by the number of minutes, hours or days which a worker or employee had worked on average in order to produce one unit of a certain product (e.g., one Volkswagen Golf). The physical character of the productivity measure is quickly understood when labour productivity is portrayed with respect to a physical product. However, this character is not apparent to the layman when employees produce several different outputs during their production processes, the units or quantities of the diverse outputs not being suitable for physical accumulation (the "apple and pear" Problem). In such constellations, which happen very often and regularly, the output quantities must be valued with their (market) prices, which means that the numerator in expression (1) is a monetary value sum. Therefore, labour productivity can be defined as

- (physical) performance per labourer
- (physical) performance per labour hour
- created value per labourer
- created value per labour hour

So, when labour productivity is measured by the created value, i.e. expressed in monetary terms, it is not immediately obvious that it represents a physical relation. Defining labour productivity as a real dimension is shown by the practice of proving (whenever a growth of that code number is observed in its monetary form) whether this growth is caused by the increase of output prices alone or to the growth of output prices. The increase of prices signals inflation or improvement of output quality. Taking the pure price growth into account, the physical increase of labour productivity can be revealed, even if in monetary terms.[1]

Capital Productivity

Productivity of capital measures the value, created by producing goods and services, per one € deployed capital. This means that the output of goods and services produced in year t is related to a monetary term which represents the value of the different types of capital. These different types of capital distinguish themselves by their diverse physical nature and therefore cannot be added up to one single unit capital. This is only possible by choosing the monetary value of the different types of capital and to sum these values up to the monetary value expression of capital which has been used overall in order to produce that specific number of goods and services per hour or year. Accordingly, capital productivity can be defined as

- (physical) output per 1 € capital input in period t
- Value created per 1 € capital input in period t

Total Factor Productivity

Sometimes, there is talk of *total factor productivity*. In that case, the output or performance of a production process is related to the totality of the outputs used. As the physical nature of human labour input and capital input are different, again, all inputs are expressed in monetary terms. Accordingly, total factor productivity can be defined as

- (physical) output per 1 € total factor input in period t
- value created per 1 € total factor input in period t

Perspectives of Observation

A reference number of productivity alone has no information content per se. The information content is only gained by comparison with at least a second productivity ratio. This comparison can only be via three perspectives, namely

- as a cross-section comparison
- as a longitudinal section comparison
- as a target – performance comparison

Figure 1 illustrates these three perspectives.

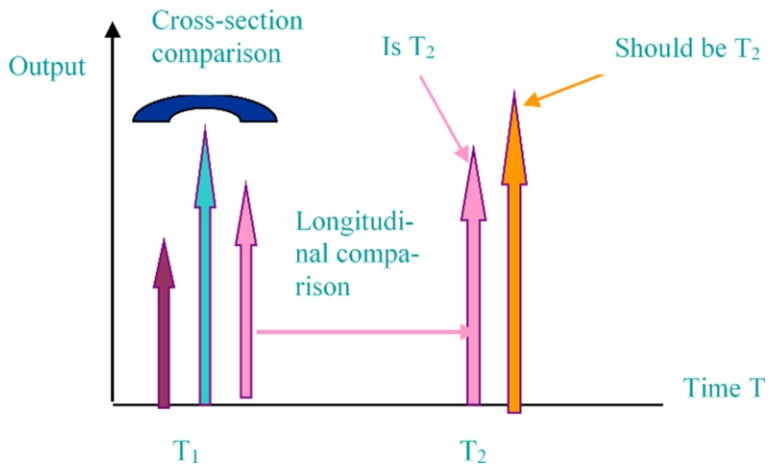

Figure 1. Three perspectives of comparison

As part of a cross section, comparison productivity reference numbers of (comparable) organizations are compared based on a qualifying day with respect to a certain year T. Figure 1 illustrates these three perspectives in the case of three organizations, e.g., three schools, whose productivity in year T_1 is compared. The longitudinal comparison relates the productivity reference number of the same

organization at least two different points in time or base years as each other. In Figure 1 these are the base years T_1 and T_2. By means of this longitudinal comparison the development of productivity is depicted. Finally, the target – performance comparison starts with a defined productivity target for a certain planning year and sets it against the productivity level which has in fact been realized.

Levels of Observation

The output which is produced by means of a certain input of resources (i.e. the productivity) may be defined and observed at different levels of performance. Taking the automotive industry as an example, we may look at the average productivity per single worker or employee or at the average productivity of an operation unit or of the whole enterprise or of the automotive branch. With respect to schooling, the observation levels can be modelled as follows:

- the learning or teaching person (the individual level, e.g., the single teacher or pupil)
- the teaching or training institution no. 1(the institutional level no. 1, e.g., the single school class)
- the teaching or training institution no. 2 (the institutional level no.2, e.g., the single school)
- the teaching or training system no. 1 (the system level no.1, e.g., the school system of a federal state)
- the teaching or training system no. 2 (the system level no. 2, the school system of a country)

OBJECTS OF OBSERVATION

Output Measures of Successful School Education

It should be clear that before talking about productivity of schools or school systems one needs a well-defined measure of output. We can imagine quite a number of possible measures of schooling output which are also used more or less in daily school life. These include e.g.:

- the satisfaction of the "clients"[2]
- the number or rate of pupils moving up from grade to grade
- the number of (successful) graduates of a school class or of a school or of a school system
- the success quota, e.g., the proportion of the members of a cohort having entered a school or a school system in $T_{1\text{-}x}$ and having successfully graduated in T_1
- the distribution of final school grades or grades per school subject of a cohort (or cohorts) of graduates at class, school or system level

- the average level of competencies or/ and the distribution of these competencies with respect to reading, mathematics and sciences (e.g., TIMSS/ PISA), again at class, school or system level.

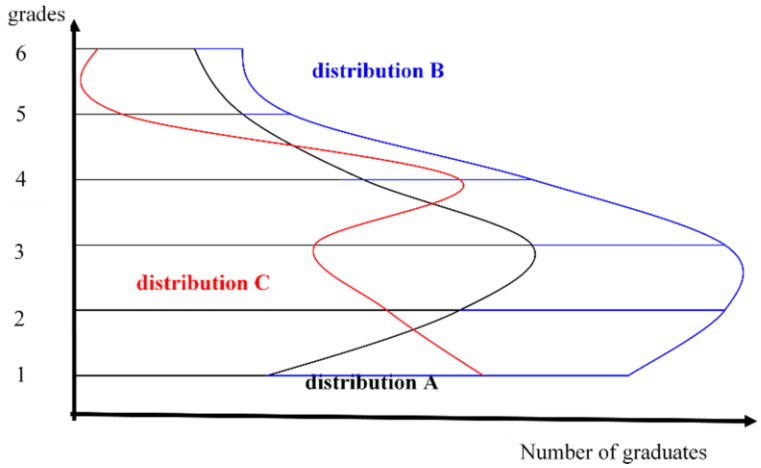

Figure 2. Alternative distributions of final grades of comparable school classes

Figure 2 shall demonstrate that judgements about output or performance levels, e.g., of schools seem prima facie easy and quick to express. So it seems convincing to conclude that class B can show better performances than classes A and C. However, at first glance it is not perceivable which of the two classes A and C adduce better learning performances.

Inputs in and Productivity Indicators of Successful School Education

A few examples shall complete the view on schooling. Inputs into the teaching – learning process in schools are, among others:

- the number of teachers
- the number of teachers per class
- the competencies and quality of teachers
- the number of teacher hours in school (during teaching in classes (teaching load) and in school but not teaching)
- the number of teacher hours at home (preparing and following up teaching/ lessons, corrections of pupils' tests among other school related activities)
- class size (the number of pupils per class)
- the number of pupils per teacher
- the number of hours of pupils in school (formal learning load/ presence in school)

- the number of hours pupils learn at home (homework, preparing and following up lessons)
- the learning material and its quality
- teaching style and methods of teachers
- constitution and quality of facilities
- energy a. o. physical resources

From the diverse output definitions and measures and these input measures we now can construct productivity reference numbers or productivity measures which means that there is not only one single productivity measure but quite a number of schooling productivities, depending on the choice of output definition and measure as well as of input definition and measure. Some of the productivity measures are not always plausible at first glance. So, we could relate the number of successful graduates of a school to the number of the teachers who have taught the graduates (either in their last, i.e. graduation class and year, or during the whole schooling passage). Or we could relate the number of the successful graduates to the number of teacher hours they have "consumed" during their school life. We could also relate the average grade of a school class to the average learning time (in hours). A last productivity measure of a school to mention here would be the ratio between the average competency level of the pupil body and the teacher and pupil time used up during learning. The question at the end of these considerations is: How to handle these many different alternatives to define and measure school productivity, which one makes sense for what purpose.

Productivity Ratios in Higher Education (teaching and learning)

Nowadays, institutions of higher education have to fulfil several functions. They have to offer teaching, basic or applied research, transfer of new knowledge to society and enterprises, promotion of young researchers and scientific continuing education, to name the most important tasks. Intending to make statements about the productivity of institutions of higher education with respect to these activity areas requires, again, well-defined measures of the output of these activities. In relation to teaching and learning, the following output measures are mentioned most frequently:

- the number of (male and female) graduates per subject or discipline, per department or faculty, per the entire institution or per state or country,
- the number of graduates per teaching person or scientist,
- the number of graduates per professorship,
- the number of graduates graduating within the standard period of study,
- the success rates of graduates during an examination phase per subject/ discipline, per department/ faculty or entire institution (examination success rate),
- the success rates of certain student cohorts per discipline, department, entire institution (study success rate),
- the grade distribution per discipline, department/ faculty, entire institution,
- further measures are imaginable.

Productivity Ratios with Respect to Research and Transfer

In the course of evaluation or rating procedures the following indicators of productivity have been established:

- the amount of third-party funds per professorship (per discipline, department, faculty, institution),
- the amount of third-party funds per scientist (per discipline, department, faculty, institution),
- the number of PhD awards per professorship (per discipline, department, faculty, institution),
- the number of PhD awards per scientist (per discipline, department, faculty, institution),
- the average number of publications per professorship or per scientist ((per discipline, department, faculty, institution)
  - the total number, and broken down by type of publication (text books, monographs, anthologies, articles, grey papers, revealing the share of author in question in case of joint production),
  - the number of articles in refereed and non-refereed journals,
  - the number of articles in categorized journals (A, B, C journals)
- the number of citations per professorship or scientist according to citation indices,
- the average impact factors of professorships or scientists (per discipline, department/ faculty or institution),
- the number of habilitation awards per professorship/ scientist (per discipline, department/ faculty or institution),
- the number of patents per professorship/ scientist (per discipline, department/ faculty or institution),
- the number of licences sold for the purpose of using patents by external organisations or persons.
- Further measures may be imaginable.

It should be noted that most these output measures at the first glance seem to be of a quantitative nature. But they also have a qualitative dimension which is not visible (e.g., if we look at the number of graduates), but which is obvious when we look at publications in classified journals, at grade distributions, impact factors or citation statistics even though the latter indicators are discussed critically.

Output Measures with Respect to (Adult) Continuing Education

The need to define and measure output also counts for continuing education (c. e.). Again, we can conceive of a number of indicators which are more or less used:

- the satisfaction of the "clients"[3]
- the number of successful graduates of a course, a programme, of an institution of c. e. or of the system,

- the success rate, i.e. the proportion of an adult learning group which successfully has finished a course, a module, a programme, a training unit, a course of studies,
- the grade distribution of cohorts of participants who have finished a course, a module, a programme, a training unit or a course of studies (on the level of a single institution, of learning programmes or in comparison of programmes, institutions or systems),
- the average competence level or the competence distribution with respect to reading, text comprehension, mathematics and science (see PIAAC results, the "Programme for the International Assessment of Adult Competencies") related to visiting certain learning offers and contents according to programmes, institutions or systems.

Inputs in and Productivity Indicators of (Adult) Continuing Education

A few examples are given in order to complete the view upon continuing or adult education. Inputs which enter the teaching-learning process in adult or continuing education are:

- the number of lecturers,
- the number of lecturer hours in the institution (in the courses and beyond),
- the number of lecturer hours at home (for preparation, follow up and proofreading),
- the number of learning hours of participants during courses (hours of presence),
- the number of learning hours of participants at home or elsewhere outside the institution (for (e-) learning, assignments, preparation for and follow up of course hours),
- learning material,
- energy, etc.

Taking the output measures and these input categories together it is possible to construct productivity indicators or measures which are not always lucid. So we could relate the number of successful adult participants of a course of studies at a c. e. institution to the number of lecturers or of lecturer hours. Or we could build a ratio between the average grade of an adult learning group attending a formal course of studies and finishing by a written exam on the one hand and the average learning time (in hours) invested by the participants. We could also think of a productivity measure for a course, a module, a programme or an institution by relating the average competency level of the participants to the teaching time used by the lecturers or to the learning time invested by the participants.

From all the examples of the attempts to define and measure educational productivity we can learn first that educational productivity is a construct whose construction depends on the view upon education as well as on the interest of the observer to create a certain message about education.

Gross Versus Net-Output (value added)

Among US American education researchers it is much more common than in Germany to express the idea of knowledge growth through learning by means of the distinction between gross-output and net-output, with the latter also being called *value added*. Behind this distinction stands the plausible thought that by learning (at school, in the university, or in adult education courses) an increase of knowledge happens (which is likely to be different for each learner). This increase of knowledge indicates an extra value of knowledge, called value added. In order to determine this value added or net-output one should know the entrance knowledge at the beginning of a (new) learning period. Only then, the difference between the entrance knowledge and the level of knowledge at the end of the learning period, i.e. the value added or net-output, could be observed and measured. In most educational systems however, the result of learning activities is measured by the gross-output, not by the value added or net-output. This means that at the end of a learning period (e.g., a school year or a semester) the exams are not precisely tailored to test the knowledge growth but more or less they test the total knowledge having been acquired in the course of the total learning history of the pupils or students (i.e. the gross-output). As far as this proposition is likely to describe the learning, examination and assessment practices, particularly in schools, better than competing views there is the possibility of some element of unequal treatment and unfairness embedded in these practices.

Figure 3 tries to illustrate this problem in a model-like and idealistic way. It is assumed that pupil P1 has a lower entrance knowledge than pupil P2. But pupil P1

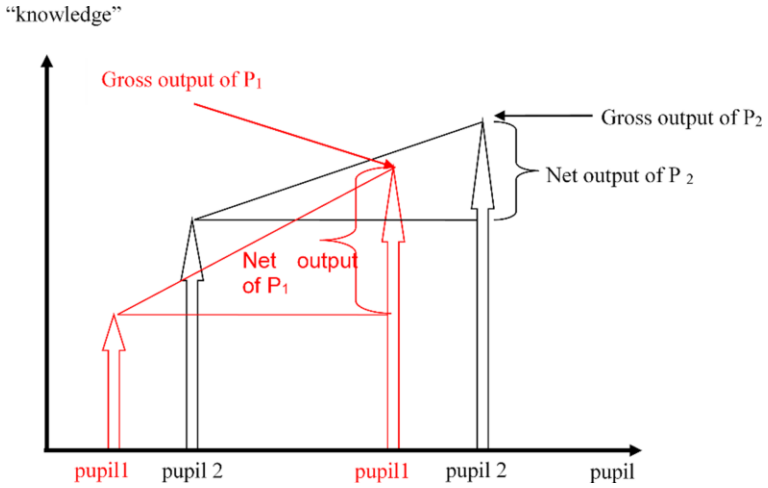

Figure 3. Gross-output

has – for many possible reasons – a greater increase of knowledge than has pupil P2. However, due to the size of the difference of the entrance knowledge between P1 and P2, the latter ends up with a higher gross output than P1. If the net-output were to be assessed, P1 would get a higher grade than P2; however if the gross-output were assessed, P2 would get the higher grade. The latter solution would pose a pedagogical problem, as the purpose of learning (in school) is to learn more and to improve one's knowledge as much as possible. In our synthetic example, P1 would be the better learner or – simply spoken – the better pupil. From this constructed example follows the postulation that in case someone talks about the productivity of education institutions like schools or others he or she should reflect whether they talk of gross- or net-output.

A mnemonic sentence shall close the discussion of productivity: A productivity measure is a statistical reference number in terms of a ratio which by itself has no message. Only by relating a productivity ratio to other productivity ratios (at least one other) productivity gains information content. Three references can be developed: the first one as a cross-section relation to other comparable relations between output and input (e.g, of another education institution), the second as a longitudinal relation between different states of performance of the same institution at different points in time, and the third as a comparison between productivity targets and productivity levels realised. An important aspect is to ascertain whether one is speaking about growth of knowledge over a certain period of time or about a certain body of knowledge at a certain point in time.

THE EFFECTIVENESS CONCEPT

Let us start with another *mnemonic sentence*: While productivity relates effects or output to inputs of resources used to produce that output, efficiency or effectiveness relates output levels to each other; i.e. it measures output relations as ratios as demonstrated by the following equation.

Effectiveness or effectivity = output level i / output level j $\rightarrow$ EFT = O_i / O_j

As with productivity, the perspectives of observation arise from the cross-section, the longitudinal section and the target – performance comparison. For example, when the target performance points on a PISA reading test is 600 points at most then these 600 points are the should or the performance objective. If a learning group (school class A) performs well and achieves 500 points, whereas another group (class B) comes to 520 points we would say that teaching and learning in group B is more effective than that in group A. Of course, stating the higher effectivity of class B does not say anything about the "why". If we wanted to find an answer, we would have to look at the differences between the two classes with respect to instruction conditions, teacher and teaching quality, learning time of the pupils, previous knowledge of the pupils, their social background and support at

home, and many other variables. But trying to relate the performance of the two classes to one, or some, of the variables mentioned would mean that we would try to construct output – input relations, i.e. we would shift to the productivity concept. The conclusion is that when we talk about effectiveness, we do not look at the inputs or outlays. We could say that effectiveness or effectivity typically do express not the economic but the pedagogical perspective on pedagogical doing. The following Figure 4 may serve as a didactic aid.

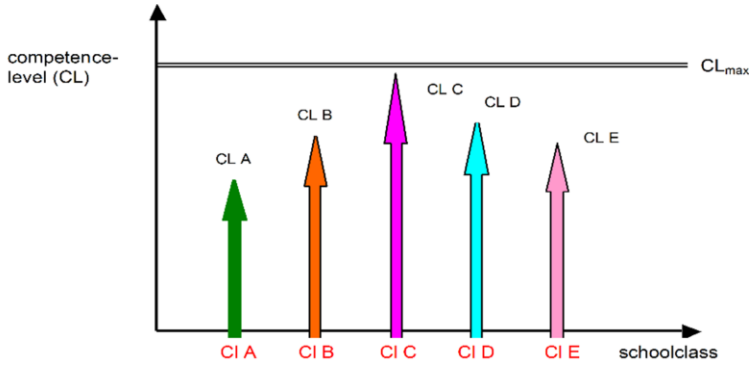

Figure 4. The effectiveness concept

Figure 4 illustrates the idea of a cross section as well as of a target–performance comparison. The target is defined by the competence level CL_{max} which represents the maximum competence level (e.g., of reading skills) which could be reached by the pupils. It is the target for all pupils of the five classes. The target–performance approach measures the difference between the target competence level CL_{max} and the competence levels realised by each class. The figure also displays the cross- section approach, as it is hypothetically shown that class C has enjoyed the most effective instruction while class A represents the least effective solution of the interplay between teaching and learning.

An extract from the PISA results (see Figure 5) elucidates that the international comparison of competencies which are produced or promoted by school learning is about effectiveness. PISA presents potencies of school instruction in terms of measuring competencies: that is of the effectiveness of teaching and learning by school instruction as a cross section comparison between countries, as longitudinal section comparison per country over two years in our figure (2000 and 2006) and finally in terms of a target–performance comparison taking the OECD average as a kind of target or measuring the competency level performed e.g. in Germany against the level arrived at in Japan in 2000 or Finland in 2006.

OECD	2000	2006
Österreich	515	511
Kanada	533	534
Dänemark	514	496
Finnland	536	563
Frankreich	517	495
Deutschland	490	516
Italien	457	475
Japan	557	531
Korea	547	522
Norwegen	499	487
Schweden	510	503
Schweiz	529	512
England	529	515
USA	493	489
OECD Ø	500	500

Figure 5. Reflections on effectiveness in the early PISA surveys

Similarly, looking at the PIAAC results in Figure 6, it becomes clear again that the international comparison of competences (in reading in the case shown) among adults is a matter of measuring the effectiveness of creating or promoting different dimensions of competences by stimulating learning among adults. PIAAC compares learning effectivity in terms of cross section and target–performance observations.

Having clarified the meaning of productivity first and effectiveness second, we will now turn to efficiency, which is the core perspective of economists in looking upon educational processes, institutions and structures.

THE EFFICIENCY CONCEPT

With the efficiency concept we measure the relation between the output of an achievement and the cost which originates from the process of producing the output. It implies that all input quantities (of a certain quality) used in that production process are assessed with their prices. Beyond this action, efficiency contains a normative implication inasmuch as the relation between the output and its (production, distribution and sales) cost should be optimized so that no resources (or inputs) are wasted. Cost is defined as the quantity of inputs (of a certain quality) consumed in order to produce the output and assessed with their prices. The quantities of the resources used and consumed in the production process are called the quantity scaffold of the cost while the prices of the inputs are called the value scaffold of the cost.

Länder					Perzentile					
	M	*(SE)*	*SD*	*(SE)*	5 %	10 %	25 %	75 %	90 %	95 %
Japan	296	(0.7)	40	(0.6)	226	244	272	324	344	355
Finnland	288	(0.7)	51	(0.8)	200	224	258	322	347	362
Niederlande	284	(0.7)	48	(0.6)	196	219	256	317	341	355
Australien	280	(0.9)	50	(0.8)	193	217	251	315	340	355
Schweden	279	(0.7)	51	(0.8)	188	215	251	313	338	351
Norwegen	278	(0.6)	47	(0.6)	195	218	251	311	333	347
Estland	276	(0.7)	44	(0.5)	199	218	248	306	330	344
Flandern (Belgien)*	275	(0.8)	47	(0.6)	191	213	246	309	332	344
Tschechische Republik	274	(1.0)	41	(0.8)	203	221	249	302	323	336
Slowakische Republik	274	(0.6)	40	(0.6)	201	221	250	301	321	332
Kanada	273	(0.6)	50	(0.5)	185	208	243	309	334	348
OECD-Durchschnitt	273	(0.2)	47	(0.1)	190	212	245	305	329	342
Südkorea	273	(0.6)	42	(0.5)	199	219	248	301	322	335
England/Nordirland (GB)	272	(1.0)	49	(0.8)	188	209	241	307	333	347
Dänemark	271	(0.6)	48	(0.6)	186	210	244	303	326	339
Deutschland	270	(0.9)	47	(0.6)	186	206	239	304	328	341
Vereinigte Staaten*	270	(1.0)	49	(0.8)	182	204	238	305	330	344
Österreich	269	(0.7)	44	(0.5)	194	213	242	300	323	336
Zypern*	269	(0.8)	40	(0.5)	198	215	244	296	318	331
Polen	267	(0.6)	48	(0.6)	182	204	237	300	325	340
Irland	267	(0.9)	47	(0.7)	182	207	239	298	323	337
Frankreich	262	(0.6)	49	(0.4)	174	197	232	297	321	334
Spanien	252	(0.7)	49	(0.6)	164	187	222	286	311	325
Italien	250	(1.1)	45	(0.7)	173	192	222	282	306	319

Statistisch signifikant über dem OECD-Durchschnitt

Statistisch nicht signifikant verschieden vom OECD-Durchschnitt

Statistisch signifikant unter dem OECD-Durchschnitt

Figure 6. PIAAC, international comparison of mean and mean variation of reading competence[4]

Usually, two variants of the efficiency concept are distinguished: the first variant being (i) the microeconomic concept which refers to the efficiency of an action, of a process, of a measure, of an organization unit or an organization or an enterprise, and which is called internal or business economical efficiency. It measures the relation between output and cost of actions on that microeconomic level and it requires the optimization of those relations; (ii) the second variant of efficiency is a macroeconomic version which asks for efficiency of actions of societal systems, e.g., one may ask for the efficiency of the educational system of a country, of the labour market politics of a country or of the macroeconomic allocation of resources of a country. This version is also called the external efficiency and it is also led by the normative orientation towards optimization.

The Microeconomic Efficiency Concept

The microeconomic efficiency concept will be explained with the help of an *educational production function (EPF)*. An EPF represents the simple fact that most

goods or services which people buy and use or consume must be produced, namely by transforming material (raw materials) and human labour input into the goods and services wanted. Generally, in these transformation processes specific methods or technologies are used in order to perform them. Thus, the inputs used, the technology applied and the production results are in a certain functional relationship with respect to quantity and quality. Certain quantities and qualities of inputs, transformed to a certain quantity and quality of outputs by certain technological and methodical processes, are needed. Therefore, this systematic connection of inputs to outputs by transforming operations is called the production function. This picture originating in business economics may well be applied to schooling, in the first instance as didactic aid in the form of an EPF. The use of the concept of an EPF allows us to describe the average level of the reading competence of a course as the result of the systematic co-working and combination of a number of factors and processes as is shown by the following function.

The reading competence of the participants of a reading course RC may be a function of lecturer time, lecture time, reading material, spatial and technical facilities, group size, method and didactic of teaching, instruction time (duration and frequency), power consumption, use of IT facilities and internet access as well as its use, learning hours at home and home support. This EPF would describe the processes of producing or developing reading competence, e.g., of a school class as efficient, if

- under the use of the existing knowledge, the best available teaching-learning technology as well as the best available teaching and learning methods, the input quantities (valued with their current prices) would be used and combined in such a way that under the restriction of a given cost level (reflected in a set budget) the reading competence of the school class would be maximized. This version of efficiency is called the maximum principle of optimization.
  or if
- a certain level of reading competence (e.g., the competence target) can be realized at minimum cost. This is called the minimum principle of optimization or of efficiency.
  The following relations or definitions hold:

Efficiency = output / cost $\rightarrow$ Efc = $O_t / K_t \rightarrow$ is to optimize !!

Two alternative variants exist:

i) the maximum principle: O_{max} / K_{set}
ii) the minimum principle: O_{set} / K_{min}

An important feature of the EPF is the assumption that the existing available teaching and learning technologies as well as the didactic methods are known anytime. Therefore, if the space of alternative teaching and learning technologies and methods is given and known, the conclusion often drawn by non-economists that

efficiency is given when a maximum result (output) can be achieved at minimal cost is logically excluded. Due to logical reasoning, an increase of output and a decrease of cost at the same time can only happen when either the production process has been inefficient before or when a technological or methodical or didactic progress has taken place, which is used for the first time. Again, a helpful overview given by a graphic presentation.

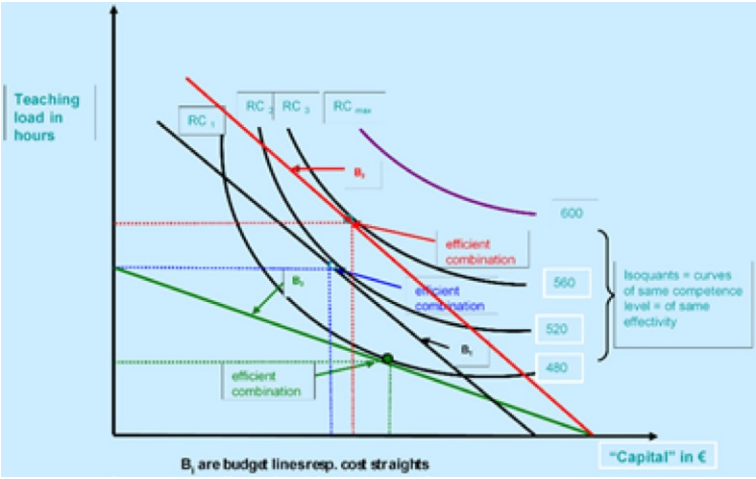

Figure 7. The demonstration of productivity, effectiveness and efficiency by means of an educational production function

Figures 7 and 8 are presented in order to give insight into the concepts of productivity, effectiveness and efficiency from another perspective. To understand the message of the figures requires some efforts at abstraction by the reader. Let us assume a school commands a budget of a certain size which can be used (in order to offer reading courses) to buy teacher time and/ or instruction technology. The latter is represented by the term capital in both figures. The school could buy and employ a large amount of teacher time at the expense of technology investment. In that case, the instruction process would get very teacher or labour intensive. Alternatively, the school could decide to concentrate on self-learning programmes and buy and use appropriate equipment and software programmes. In that case, the school would need and buy considerably less teacher time and would arrange instruction capital intensive. In other words: basically, the school can use different instruction methods or technologies which can be teacher or capital intensive. The school has the choice between a variety of different combination options between teacher labour and capital due to the different instruction technologies. The assumption that different combinations of the two sets of inputs, i.e. teacher labour (time) and capital, could be financed by the same budget is expressed by the so called budget line B_1 in both

figures. Of course, the quantity (and quality) of teacher labour input which could be purchased and used would depend on the teacher salary or on the price of the teaching hour and on the price of capital input, i.e. on the price of the instruction equipment (hardware and software). Theoretically, one could imagine the school spending the whole budget for buying and using either teacher time or teaching reading equipment. The answer to this pure economic question – how to spend the budget – crucially depends on the pedagogical question *which* reading performance could or should be developed by combining teacher and capital input under the roof of alternative instruction technologies. As a consequence, we have to turn now to this eminent pedagogical question.

Let us have a look upon the curve RC_2 (Figure 7) or LK_2 (Figure 8). The message of that curve tells us that the school could produce this level of the average reading competence of a reading course by different combinations of teacher (time) input and capital input, i.e. instruction technology input (hard and software as well as learning material). In economic terms: The competence level RC_2 / LK_2 can be achieved by different production processes. The production processes represent different teaching-learning technologies, e.g., the use of a large amount of teachers and teacher time teaching small groups of learners and using chalkboards and books and pencil and paper on the one hand, and the employment of few teachers (and teacher time) serving as learning advisors and moderators while the pupils intensively use tablets, smart phones, self-learning programmes and the internet. Also conceivable and likely would be combinations lying between the two theoretical poles of using either teacher time or digitized learning only. The curves which represent the same level of output, in our case of reading competence, are called isoquants. They represent the same level of effectiveness. The farther removed the curves are from the zero point the larger is the output or the level of effectivity which they indicate. The isoquants are bent concave in relation to the zero point. Behind this shape stands the assumption that the relation between the quantities of teacher labour time and capital input is not a linear one. It means that in the course of substituting teacher labour by capital the school would need a growing amount of capital in order to replace a constant amount of teacher time and vice versa in order to realize a certain competence level, in our case RC_2 / LK_2. From a pedagogical point of view it is of no relevance by which combination of teacher and capital input the competence level (CR_2 in our case) aimed at is realized as long as it is reached. Assuming the school would like to strive for a higher competence level, e.g., RC_3 / LK_3, either more teacher labour input or more capital input or more of both would be necessary. Assuming that all existing instruction technologies are known and already taken into account, a higher level of reading competence could only be achieved by more of one or both inputs. In other words: RC_3 / LK_3 represents a higher effectiveness than RC_2 / LK_2 does but also demands a higher input of resources.

An important question is not yet solved. How can we decide what combination of teacher labour input and capital input should be chosen in order to achieve the reading competence level RC_2 / LK_2? From a pedagogical point of view it does not

matter at all as long as the level is achieved. It says that there do not exist pedagogical criteria to decide except for ideological convictions in favour of a high degree of labour intensity or in favour of modern media and information technology. Now the bell rings in favour of the economic argument because the use of teacher time and capital input create cost and demand for budgets which are usually tight. From this perspective it is of decisive relevance which combination of teacher and capital input will be chosen in order to achieve competence level RC_2. Figure 8 is thought to illustrate that competence level LK_2 will be achieved by any combination of teacher time and capital as long as the budget from which the inputs employed have to be financed will at least meet budget line B_1. Of course, also budget B_2 could serve to realize competence level LK_2, in fact all combinations of teacher time and capital between the points P_1 and P_2. However, choosing one of these combinations would result in a waste of resources and money, and it would mean to achieve competence level LK_2 in an inefficient manner because the school could realize that output level with budget B_1 at point B_{2opt}.

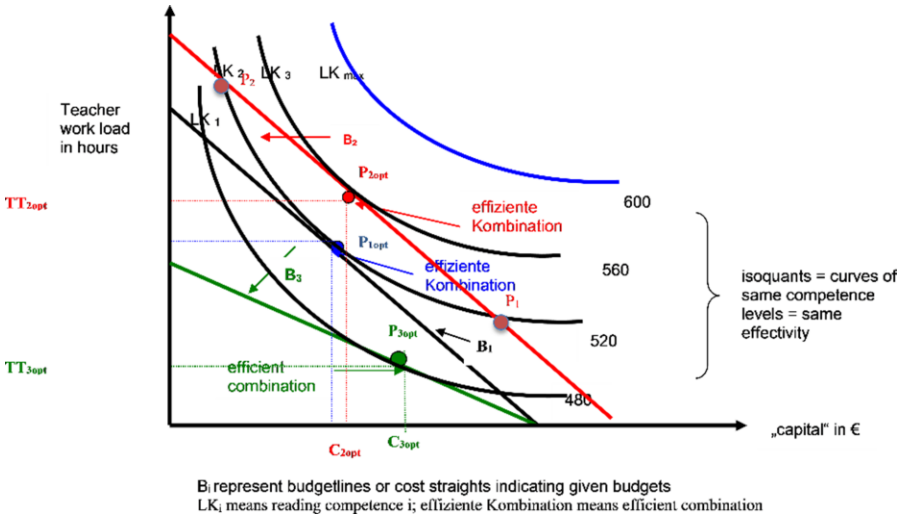

Figure 8. Explanation of efficiency

This result says that among all combination options between teacher input and capital input only one combination is efficient, given budget B_1 and the input prices. This the combination in P_{1opt}. We can now demonstrate the meaning and relevance of microeconomic efficiency: should a certain level of reading competence be achieved, the school would need as a necessary minimum budget B_1. It represents the budget size which is necessary to at least produce the competence level LK_2 in combination point P_{2opt}. In other words: in point P_{2opt} a certain level of output (of reading competence) is produced at minimum cost (the minimum principle of

efficiency). At the same time, LK_2 is that competence level which can be achieved with budget B_1 at most (which expresses the maximum principle of efficiency). In a world of schooling in which no technological or methodical-didactical progress takes place, the minimum and the maximum principle are two sides of the same medal called efficiency.

With the help of the educational production function presented above, the three concepts of productivity, effectiveness and microeconomic efficiency can be exemplified. Effectiveness is illustrated by the relation between the isoquants themselves, representing competence levels. The further the isoquants move away from the zero point the higher is the competence level which they indicate. Productivity of reading instruction can be observed by relating the competence level at certain points of input combinations (e.g., P_{2opt}) to the deployment of teacher time (e.g., TT_{2opt}) and capital input (C_{2opt}). Finally, efficiency is illustrated by the optimal production points which allow the realization of a certain competence (output) level at minimum cost or a maximum output at a given cost or budget. If we compare the implications of different budget sizes (e.g., B_1 with B_2) we can conclude that a larger budget – with input prices remaining constant – allows schools to achieve a higher output or competence level represented in P_{2opt}. In this hypothetical case, P_{2opt} requires a stronger growth of teacher input rather than capital input which says that the input ratio between teacher time and capital would change in favour of labour. This may mean that capital productivity increases while labour productivity may remain constant or even decrease, depending on the amount of each of the four changes (budget change, output change, change of labour input and change of capital input, the latter three changes due to the budget change). Whether the efficiency would in- or decrease or remain constant would depend on the size of the output growth in relation to the budget growth.

What will happen to productivity, effectiveness and efficiency when the prices of resources change? It is very likely that they will affect productivity, effectiveness as well as efficiency. In Figure 8 it is assumed that due to successful salary negotiations of the teacher's union and due to a shortage of young teachers the teacher salaries have risen considerably. A fixed budget implies that less teacher input can be purchased and deployed. In Figure 8 this effect can be shown by a turn of the budget line B_1 to the left towards the zero point becoming budget line B_3. The result would be a kind of pedagogical earthquake. The available competence level would fall down to LK_1, the optimal or efficient combination of teacher time and capital input would be indicated by P_{3opt} while the efficient input of teacher time would decrease to TT_{3opt} and capital input would climb to C_{3opt}. This would mean that a substitution of teacher labour by capital, i. e. by technical learning equipment, would occur. In other words: a different teaching-learning technology would be applied. The model of the educational production function represented by the figures 7 and 8 demonstrates how close economic and pedagogical processes can be woven together. This tight interrelation between economics and education shall finally be illustrated with the help of Figure 9 which should now be self-explanatory. However,

in the context of education there are some particularities of educational production which will be addressed now.

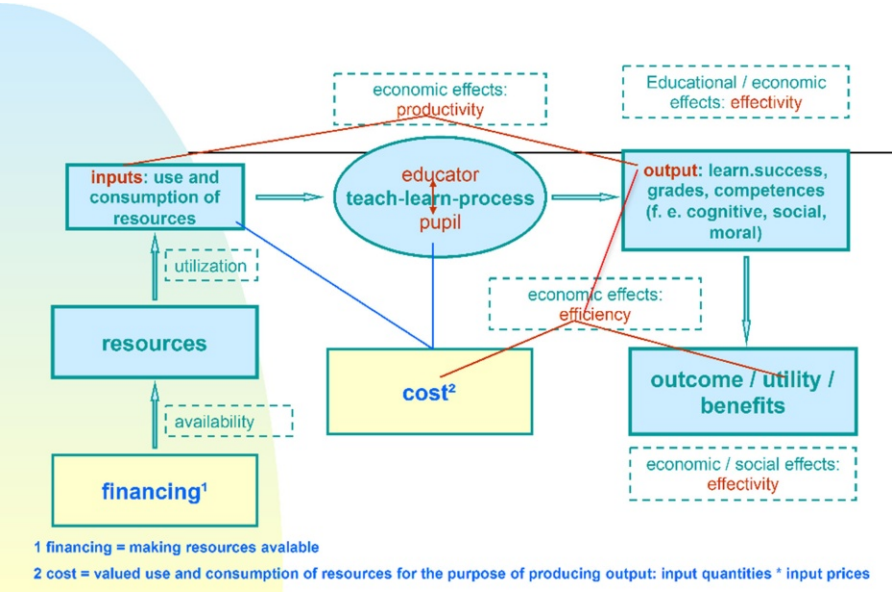

Figure 9. Societal effects of education

THE PECULIARITIES OF THE EDUCATIONAL PRODUCTION

The first peculiarity consists in the indetermination of the educational production – be it in preschool, high school, higher education or adult education. Niklas Luhmann[5] introduced the hypothesis of the *technology deficit of education*, and he included in his assertion family education as well as all kinds of learning in organized contexts. The educational production function suggests a linear process of transformation of the contents taught into contents learned. Luhmann refered to the contingency of this relationship, and indeed, a comparison between producing a car and fostering competences makes this point clear. While an engineer at the Volkswagen company is able to predict with 99.9% probability what features, characteristics and qualities a car newly produced by Volkswagen will have, it will be much more difficult for a teacher or a nurse to predict which competences a child or a pupil will have at the end of a learning process. In the case of children who enter an institution as new clients or pupils, the predictions will be determined by great uncertainty. The degree of uncertainty diminishes in time with the teacher's growing acquaintance of the student, but will never disappear. This indetermination of the result of educational processes has not only to do with the limited ability to predict learning results for

each child or pupil exactly but it has also to do with the role of the learner as a co-producer of his or her competences who decide autonomously when what how to learn. In addition comes the fact that development of competences is always influenced by informal learning and by forces from the non-school environment (e.g., family, media, peers).

With respect to vocational education and training and higher education a twofold indetermination of educational production seems to be at work. The technology deficit of the production process is complemented by the uncertainty of effects in the course of the transfer processes of competences acquired by education and training into productive work in the employment system. The role of the learners as co-producers of their education or competences turns into their role as acting subjects within the process of knowledge transfer and in their vocational lives. Also there, linearity does not dominate the relations between what has been learned in school, vocational training or higher education institutions and what is done in daily work and life, instead, only probabilities are possible to identify.

The Macroeconomic Concept of Efficiency

Macroeconomic efficiency aims at the optimal allocation of resources. This leads to the question of those costs of resource utilization in order to produce all kind of goods and services in all the different economic sectors and branches which maximize the macroeconomic or macrosocietal welfare or benefit under the assumption that the technical and scientific knowledge is given and known. Again, it is a very abstract and theoretical concept, and it has two basic assumptions. The first assumption refers to the wants and needs of the citizens of a society and to the satisfaction of these wants. The starting point for the economy then is to satisfy as many wants and needs as possible by producing and distributing goods and services to the citizens. When goods and services open these properties they are said to bring about *utility*. We can apply this idea to the single human being who commands certain financial resources and wants to maximize his or her individual utility by purchasing and consuming goods and services. The behaviour of this human being would be called efficient if he or she were able to distribute his / her income in such a way that the last available Euro of that income spent for goods and services would create the same marginal benefit from consuming these goods and services.

We can apply this idea to society. A society also has a great bundle of wants and needs which represents mainly the sum of the individual wants, but also politically defined needs. The distinction between wants and needs is functional because the individual subjectively does not feel any want to own a street but he or she feels the wish or the wants to drive a car. But driving a car is usually only possible if there are streets. So we could say that the want to own a car refers to a private good while the street is a public or political good and a need. From the macroeconomic point of view an economy functions efficient when under the assumption of a given national income the welfare of the society is maximized. This would be the case if the last

available Euro alternatively spent for education or housing or traffic or security or health or private or public consumption would create the same additional welfare benefit. This refers to the usage or consumption side of macroeconomic efficiency.

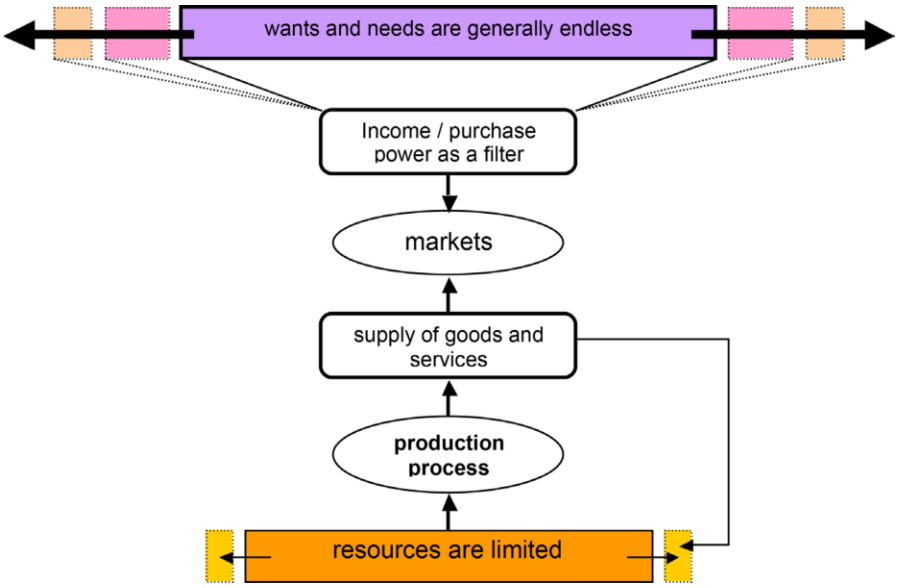

Figure 10. Shortage of resources as the rationale for aiming at efficiency

The second assumption refers to another efficiency condition which should be fulfilled when goods and services are produced. This condition would be satisfied if the last available Euro for production would create the same additional (marginal) productivity whatever good or service would be produced. Figure 11 tries to illustrate this idea.

Looking back at our discussion it has hopefully become clear that the three terms productivity, effectiveness and efficiency represent three different concepts of the effects of learning. They relate output, input and cost in three different ways to each other, partly only in a descriptive manner (productivity and effectiveness), partly burdened with a normative claim of optimization of decisions and actions (efficiency). While it seems not to be easy to operationalize efficiency (in education), in particular as to its macroeconomic meaning which is more of a theoretically-justified normative guideline for economic action, productivity and especially effectiveness are suitable for empirical observation. This has been demonstrated with respect to effectiveness, if we recall the PISA and PIAAC figures. To develop empirically-supported statements about educational productivity depends on the way the educational inputs are defined and operationalized. And again, it is important to remember the question of gross or net output and the indetermination hypothesis.

Measurability presupposes observability, and observability requires operationalization and identification of the three terms and how they are defined. This is not about subjective observations with regard to judgements of productivity, effectiveness or efficiency which could be named "felt productivity", "felt effectiveness" or "felt efficiency". Instead, it is about intersubjective measurement, i.e. about observations which are done by different persons who have the same understanding of the term so that observations change into measurements which are objective in the sense that they intersubjectively comparable and testable. In order to derive empirical propositions about productivity, effectiveness and efficiency we need empirical observations about the output and input measures which have been discussed earlier. Empirical statements about educational effectiveness require at least two kinds of output information. Empirical propositions about educational productivity need at least one output information and at least one input information, and empirical statements about educational efficiency require at least one output information and at least one cost information. However, it is important to note that an empirical statement about an output/cost ratio does not tell us whether it stands for an efficient or optimal or an inefficient or suboptimal combination of the inputs and the output. In order to be able to give an appropriate Interpretation of the ratio one must know the production function.

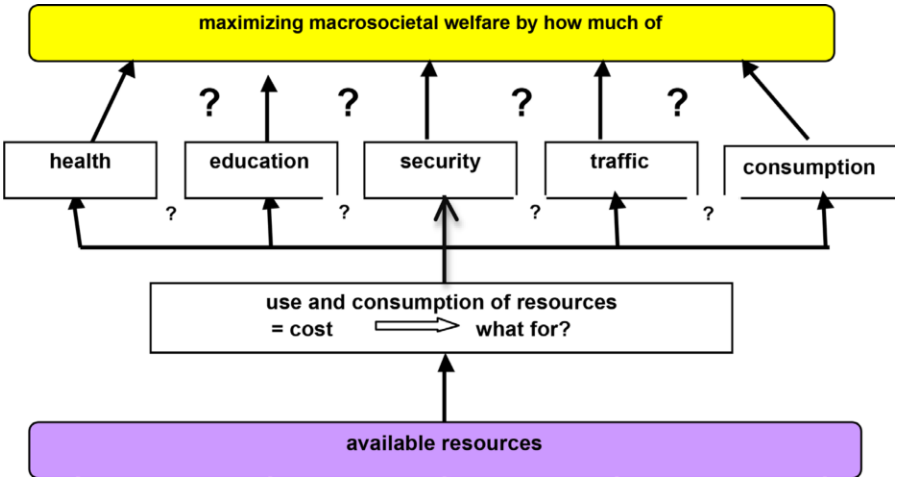

Figure 11. Macroeconomic efficiency: The production side

The relevance of the efficiency concept for educational practice seems to be the following: The concept or the idea urges the actors in educational institutions as well as in the political sphere to look for alternatives of actions which may better or more economically fit in order to achieve a certain objective of action. This is a

claim which may well be addressed to pedagogical action and experts acting in the educational field.

Finally, one can ask where does the claim towards efficient acting (also in the education system) come from. As is illustrated in figures 10 and 11, it is the shortage of available resources in relation to the endless sea of wants and needs of mankind. This relative shortage advises us to handle resources efficiently and not to waste any of them.

In the end, three questions may be posed which should stimulate further reflection.

- Do there exist processes or mechanisms or structures which ensure at least as a tendency the efficient use of resources?
- What is the best way to operationalize and measure the output of educational achievement?
- What do people mean when they complain about low or stagnating productivity or efficiency of the school or higher education system?

NOTES

[1] This may be demonstrated with an example. Let us assume that the labour productivity of an enterprise has been 15,000 € per labour hour in year t. In year t + 1, it is declared to be 16,500 €. Accordingly, it seems to have grown by 10%. However, monetary devaluation (inflation) is given as 3%. This means that without the growth of the output price the productivity would have increased up to 6.8% in year t + 1.

[2] The fact that the clients have been placed in quotes shall remind us of the custom to label pupils or students as clients. However, there exist qualified doubts as to the suitability of the term. More on that later.

[3] See endnote number 2.

[4] Source: Beatrice Rammstedt (Hrsg.): Grundlegende Kompetenzen Erwachsener im internationalen Vergleich. Ergebnisse von PIAAC 2012. Unter Mitwirkung von Daniela Ackermann, Susanne Helmschrott, Anja Klaukien, Débora B. Maehler, Silke Martin, Natascha Massing, Anouk Zabal, Tabelle 3.4, S. 44

[5] Niklas Luhmann was a famous sociologist who worked at Bielefeld University and who is the father of the modern system theory of society.

HENRY M. LEVIN

10. THE ECONOMIC PAYOFF TO INVESTING IN EDUCATIONAL JUSTICE[1]

Educational equity is a moral imperative for a society in which education is a crucial determinant of life chances. Yet there is reluctance by some authorities to invest in our most needy populations and even a skepticism on whether money makes a difference in educational results for such students (e.g., Hanushek, 2002). Fairness in access to good education is a matter of justice rather than simple economic rationality as measured by investment returns. Yet one can also ask whether there is a positive economic return on this investment, even beyond the issue of educational fairness. We know that inadequate education affects not only the poorly educated individual but also the society because of lost productivity, lower tax revenues, and higher costs of public services. Therefore, it is useful to consider not only the important issue of educational justice but the question of whether seeking such justice through greater educational investment in at-risk populations provides an overall economic payoff to the public that exceeds the costs. This issue, specifically as it applies to the United States, has been a preoccupation of mine from my early career to the present, where I am now of a certain age.

My attempt to address this question began almost 40 years ago in the early autumn of 1970, when I received a call from a staff member of U.S. Senator Walter Mondale's Select Senate Committee on Equal Educational Opportunity asking me to testify on how the federal government might improve equality of educational finance. The Committee was established to buttress the momentum of the major civil rights victories and the War on Poverty reforms of the 1960s. It was also charged with addressing the surprising finding, asserted by the *Coleman Report* (Coleman, 1966), that improved educational finance could not benefit poor and minority students who remained in schools with high concentrations of similar classmates. Only since 1968 had serious desegregation gotten under way, and the Committee sought to set out an agenda of what should follow.

I trekked to Washington from San Francisco and delivered my prepared testimony before the Committee on October 1, 1970, responding to questions from Senator Mondale and his colleagues and staff members of the Committee on ways to improve equity in educational finance (U.S. Senate, Select Committee on Equal Educational Opportunity, 1970, pp. 3503–3538). Upon completion of my testimony, the head of the staff approached and asked if I would have dinner with Senator Mondale.

P. Siljander et al. (Eds.), Schools in Transition, 161–188.

I was taken aback by the suddenness of the invitation, but, of course, I accepted. The dinner was palatable, although I knew that this was not a culinary event. At dessert and coffee, the senator turned to me with a formal challenge: "Our committee has entertained considerable testimony, all telling us that if we do not improve the education of the poor and minorities now, it will cost us far more later in terms of public assistance, crime, and lost productivity and taxes. But, when I ask these witnesses how much it will cost us, they all tell me they don't know. I want you to do a study that tells us just what educational neglect will cost us, and how much we need to spend to prevent it."

I uttered a polite protest, telling him that such a study was too ambitious in scope and too ambiguous in precision to be done and that data did not exist linking educational attainment to the sources of these costs, and what did exist could not establish a causal connection. He smiled and asked me to have a scotch for contemplation, to consider the urgency of greater equity, and added that they had budgeted $10,000 for the study, an amount equal to about $50,000 at today's prices. As the scotch went down and my bravado went up, I agreed. In the fall of 1971 I delivered the study to the Committee: *The Costs to the Nation of Inadequate Education*. The report was published in May 1972 (Levin, 1972).

The bulk of the study considered the effects of failure to attain a minimum of high school completion among men 25–34 years of age in 1970. Using lifetime income patterns by race and education level and adjusting for the presumed lower ability of the high school dropouts, I calculated estimates of the additional earnings associated with an increase in the number of high school completers, including the value of additional postsecondary education for the small number expected to continue at that level. On the basis of this analysis, I concluded that about $237 billion in lifetime income in 1970 dollars (about $1.2 trillion in 2004 dollars) was lost by failing to ensure that all persons in this cohort attained a minimum of high school completion. And there was a loss of about $71 billion ($350 billion in 2004 dollars) in government tax revenues. I also reviewed the effects of inadequate education on the costs of public assistance and crime, as well as evidence of the effects of poor education on reduced political participation, intergenerational mobility, and health costs.

Cost estimates for how to reach universal high school graduation were unavailable, so we proceeded on the assumption that schools would have to increase spending on compensatory resources by 50% for each at-risk student over all the years of schooling, a very large increase. The overall cost of this investment for the 25–34-year-old men in 1970 would have been about $40 billion in 1970 dollars ($200 billion in 2004 dollars). When I compared this apparently generous estimate of costs with the higher tax revenues that were expected to be generated, the public benefits were expected to be almost twice as large as the costs. I found that under a wide range of assumptions, a reduction in the number of poorly educated persons in the population would yield benefits well in excess of the costs – a worthy public investment.

The Senate Committee published its report and recommendations in 1972, and the report highlighted my economic analysis (U.S. Senate, Select Committee on

Equal Educational Opportunity, 1972, chap. 13). But the report received little public or political attention, overlooked by a public outraged over the Vietnam War and exhausted by the struggle for civil rights and the War on Poverty of the 1960s. So the fact that we had found that the moral argument for educational equity was strengthened politically by the economic evidence did not attract much attention.

As a scholar I was both excited by our empirical findings and disappointed by the gaps in the data and in our knowledge base that might be used to challenge the findings. What were some of the gaps?

- Other than the income data from the Census that might be used to estimate tax losses from those with inadequate education, we had little information on the links between education and participation in public services. Even the suggestive data that were available could not reveal the causal relationship between poor education and the costs of criminal justice, public assistance, and health care. At best we had access to statistical associations without adjustment for a third set of factors associated with education, such as socioeconomic status, that might also account for the use of these social services independent of education. Thus there was a need for better data and social science models that would connect low levels of education with these outcomes.
- Although many interventions were promoted to reduce school dropouts, none had been subject to rigorous evaluations through experimental, quasi-experimental, or high-quality econometric studies. Thus we lacked specific interventions with reasonably predictable consequences for increasing high school completion, our criterion for a minimally adequate education.
- The lack of evaluation results also meant that we could not estimate costs directly, and what accounting data did exist on school interventions were not appropriate for estimation of the actual costs of interventions. Financial accounting practices for education had been developed primarily for public accountability on spending, not for determining the costs of specific programs or interventions. Indeed, school accounting procedures were antithetical to accurate cost accounting, with many conventions that violated the acceptable estimation of costs (Levin & McEwan, 2001).
- More specifically, the knowledge base on the consequences of education on life outcomes, evaluations of school interventions, and an understanding of school costs were woefully thin and, in some cases, nonexistent. This meant that much of the work that I had prepared for the Committee reflected calculations based on the "best" assumptions at the time, such as the cost of gaining high school completions. The result was that I and others were stimulated to focus on improving and refining the components of evaluation of educational investments for those at risk of failure.

Overcoming the first of these three major limitations – the lack of data linking public services to the education of clientele – would depend on government and other agencies having the motivation and resources to collect the necessary information

for further analysis. However, the questions of which interventions "worked" and their costs were areas of inquiry that could be addressed by researchers. Those were the questions that I decided to pursue.

IMPROVED KNOWLEDGE OF COSTS AND EFFECTS

My earlier work had focused on cost-effective selection of teachers. I compared the costs and apparent impacts of various teacher characteristics on student achievement by combining coefficients from educational production functions with costs obtained by estimating earnings functions for those characteristics in teacher labor markets (Levin, 1970). This early work found that selecting teachers who were more intellectually able, as measured by a vocabulary test, was 5 to 10 times as effective per unit of cost in raising student achievement as selecting more experienced teachers. Interestingly, this finding is reinforced by more recent findings on teacher test scores and recruitment of teachers from more academically selective undergraduate institutions (Wayne & Youngs, 2003). Although this type of analysis could point to general guidelines for selecting better teachers, it was not appropriate for ascertaining the effectiveness of specific instructional approaches and the costs of replicating them.

As information was sought from other researchers' early evaluations of the effectiveness of instructional strategies such as computer-assisted instruction and class size reduction, I began to devote myself to developing methods of estimating the costs of educational interventions. Using the most direct approach, I set out four stages of analysis: (1) accounting for the specific resources that needed to be used to obtain the effectiveness results, such as personnel, facilities, materials, and so forth; (2) using market and quasi-market or shadow prices to place costs on these resources; (3) obtaining total costs for the intervention as well as average costs and marginal costs per student; and (4) analyzing the distribution of cost burdens among governmental and nongovernmental entities and clients to find out who was paying for the intervention (Levin, 1975).

This approach had two benefits for evaluators. First, most of the basic construction of the cost modeling for an intervention could be carried out by the developers or implementers of the intervention rather than requiring a cost accountant or economist. Data could be gathered through reports, observations, and interviews. Second, the data could be assembled on a spreadsheet, even prior to the availability of computerized financial spreadsheets such as Excel, which would enable an overall picture of costs and their determinants, as well as easy modification for hypothetical changes in assumptions. Of course, later development of computer spreadsheets not only facilitated the data assembly but also expanded the possibilities for analysis.

I was fortunate in being asked to develop methodologically the chapter on cost effectiveness for the first *Handbook of Evaluation Research* (Guttentag & Struening, 1975), a publication of the fledgling Evaluation Research Society. My

chapter, "Cost-Effectiveness Analysis in Evaluation Research," presented the initial framework in the literature for implementing cost analysis and combining it with effectiveness and benefit results to choose among alternatives. We applied these procedures to a study of the costs of emerging computer-assisted instruction (Levin & Woo, 1981), which showed cost components and their consequences for this new instructional strategy. The experience from these and other empirical studies using the cost model was incorporated into a book-length treatment of cost-effectiveness analysis for evaluators (Levin, 1983), a volume that went through 13 printings before being replaced by a second edition (Levin & McEwan, 2001).

At this point, the famous *Nation at Risk* report (National Commission on Excellence in Education, 1983) was released, proposing a wide range of educational reforms. We decided to investigate which of these reforms had credible evaluations that we might use for a cost-effectiveness study. The search yielded only 4 reforms of the 20 or so that had been proposed that also had useful evidence on educational effectiveness, specifically on mathematics and reading gains in the elementary grades. With Gene Glass focusing on the effectiveness side of interventions, we compared the cost effectiveness for increasing reading and mathematics achievement of peer and adult tutoring, computer-assisted instruction, class size reduction, and longer school days (Levin, Glass, & Meister, 1987). Surprisingly, we found that peer tutoring had one of the highest costs because of the need for adult supervision, but it also had such large effects that it showed the highest cost effectiveness for improving student achievement in both subjects. This was followed at a distance by computer-assisted instruction (standard application of drill and practice), reduced class size, and a longer school day. The cost model was also adopted for other cost-analytic evaluations, such as Barnett's (1985) classic benefit–cost study of the Perry Preschool project. The model was also applied to health topics such as a World Bank study to ascertain the economic returns to investing in strategies to reduce iron deficiency anemia, a serious but preventable scourge in industrializing societies (Levin, 1986).

CALCULATING THE RETURNS TO INVESTING IN EDUCATIONAL EQUITY

While developing the cost analysis in the 1980s, I developed a strong interest in educational reform for students who were at risk of educational failure. On the basis of research in the early 1980s on the growing student populations of immigrants, minorities, and the poor, I became convinced that the solution to improving the education of such students was acceleration, not remediation. Educational remediation was based on repetition through reducing the pace and challenge of instruction, a strategy that had the predictable consequences of increasing the achievement gap as other students followed a more challenging instructional experience. The Accelerated Schools Project adopted the opposite strategy of enriched instruction for all students, with the goal of bringing all students into the mainstream of learning. Although running counter to the dominant philosophy at that time, this approach was attractive to many teachers and schools and showed results in pilot programs.

For the next decade, my focus on cost-effectiveness and cost-benefit analyses was placed in abeyance and was displaced by my obsession with the Accelerated Schools Project, which grew to become one of the largest national educational reforms, with more than 1,000 schools in 41 U.S. states and in Hong Kong, Australia, and Brazil. To the degree that I was able to undertake research, much of it was evaluation research on Accelerated Schools as well as continuing work on issues of school choice and educational vouchers, movements that had emerged strongly in the latter ’80s and early ’90s. My leadership of the Accelerated Schools Project came to an abrupt end when I encountered a life-threatening health situation in the late 1990s that resulted in a plea by my physician to return to a normal academic life instead of one that combined teaching and other academic activities with a frenzy of travel, fundraising, personnel, and managerial responsibilities. After 31 years at Stanford, I took early retirement and moved to Teachers College, Columbia University, with the intention of returning to my previous field of research, the economics of education.

My first priority was to revise the earlier book on cost-effectiveness and cost-benefit analysis and an edited collection of applications of these tools to education (Levin & McEwan, 2001, 2002). But I also began to revisit the possibility of redoing the Mondale study. In the intervening three decades, many improvements had taken place in data availability, statistical models and computation, and understanding of the underlying relations between educational attainment and life chances. I kept wondering whether the earlier study from 1970 might be replicated at a more refined level some three and a half decades later, such that it could be used to guide public educational investment. More specifically, what was the economic payoff to the public for investing in an adequate education for all children? Did the costs exceed the fiscal gains to the taxpayer? And what proportion of the investment would be repaid through higher tax revenues and reduced demands for public services?

Fortunately, funding for the study was generously provided by two champions of greater educational equity, Lilo and Gerry Leeds. Because of the highly specialized knowledge required for various aspects of the study, I convened a team of highly regarded colleagues. They included Clive Belfield, an economist at the City University of New York; Cecilia Rouse, a Princeton University labor economist; and Peter Muennig, a faculty member and health economics specialist at Columbia University’s Mailman School of Public Health. Together, this team planned and undertook the research.[2]

HIGH SCHOOL COMPLETION AS A MINIMUM

We began by setting the goal of high school graduation as the minimum standard for adequate education. High school graduation captures both the cognitive and the noncognitive attributes that are important for success in adulthood (Heckman, Stixrud, & Urzua, 2006), and it is usually a minimum requirement for engaging in further training and higher education. Most important, we focused on high school graduation because, for the population as a whole, the United States is far from meeting

this standard. Moreover, international comparisons show the United States lagging behind a substantial number of industrialized countries in the rate of high school completion (Organisation for Economic Co-operation and Development, 2006).

Much attention has recently been devoted to determining rates of high school graduation but with no agreement on the exact numbers.[3] Some students may complete 4 years of high school but not graduate. Others graduate late. A nontrivial proportion obtains a General Educational Development (GED) diploma, which has been found to be inferior to graduation in terms of earnings and human capital (Cameron & Heckman, 1993). Nevertheless, there is general agreement on two facts. First, U.S. graduation rates are low in absolute terms. On-time public high school graduation rates are approximately 66%–70%, meaning that approximately 3 in 10 students do not graduate through the regular school system within the conventional time allotted. Second, graduation rates vary by sex and race/ethnicity. On-time public high school graduation rates for Black male students are as low as 43%. This compares with 48% for Hispanic male students and 71% for White male students. Female graduation rates vary similarly across race and ethnicity but are higher overall. Thus, although a large proportion of each cohort meets conventional educational expectations, a significant number have not received an adequate education.

Table 1. Educational attainment of U.S. population aged 20 (in Thousands)

Population group	*Under grade 9*	*Grades 9–11 (or GED)*	*High school graduates*	*College level*	*Total*	*High school dropout (%)*
Male	63	450	638	1,101	2,252	23
White	18	194	402	749	1,362	16
Black	6	69	99	127	301	25
Hispanic	38	168	104	48	358	58
Other	1	19	33	177	230	9
Female	33	259	508	1,183	1,983	15
White	6	100	297	822	1,225	9
Black	0	71	96	129	296	24
Hispanic	25	63	81	114	283	31
Other	2	26	33	118	179	16

Note. "Grades 9–11" includes persons with a GED. "College Level" includes those with some college and those with at least a B.A. degree. Dropout percentages include all persons with less than a complete high school education. From Current Population Survey of the U.S. Census (March 2005). Race-specific adjustments for rates of institutionalization to take account of incarceration are from Raphael (2004): The average rate of incarceration for Black, male high school graduates is 9%; for Black males with less than a high school education it is 23%. Race-specific adjustments for the GED that are shifted to the dropout category are from Rumberger's (2004) analysis of NELS 2000: Of all graduates, 15% of Blacks are GED holders, as compared with 8% of Whites

Table 1 shows the distribution of educational attainment for those aged 20 in 2005. These figures are based on the Current Population Survey of the U.S. Census but are adjusted to include those who are institutionalized (whom the survey does not count), to take account of those who are incarcerated; GED holders are treated as dropouts because as Cameron and Heckman (1993) show, their economic outcomes are much closer to dropouts than to high school graduates. The first two columns show that, from a cohort of 4.2 million persons, almost 100,000 have less than a 9th-grade education, and 709,000 are educated to a 9th–11th grade standard. Almost 1 in 4 men and 1 in 6 women are not high school graduates; and the proportions are significantly higher for Hispanics and African Americans.[4] We focus on the 709,000 persons with at least some high school education. With enhanced educational investments, these persons might graduate from high school.

Increasing the numbers of high school graduates will enable and motivate more individuals to attend college. We have modeled progression to college – conditional on high school graduation – in terms of attendance and completion at 2-year and 4-year colleges. We calculated rates separately by sex and race/ethnicity, assuming that new graduates are from relatively disadvantaged backgrounds, reflecting the fact that only education and not family resources is being changed. Using conservative progression rates we construct an "expected high school graduate," that is, a person who probabilistically either terminates education after high school or attends college or completes a degree. Speaking approximately, each new high school graduate has a probability of 0.8 of terminating his or her education after high school, a probability of 0.14 of attending but not completing college, and a probability of 0.06 of attending and completing a 4-year college degree.[5] Thus the "expected high school graduate" is the appropriate metric; inducing dropouts to graduate will automatically result in a modest increase of enrollment in postsecondary education, resulting in an extra set of economic benefits and costs.

EDUCATIONAL INTERVENTIONS

To carry out the benefit–cost analysis for increasing high school graduation, we undertook a survey of more than 200 articles and unpublished papers to seek interventions that showed evidence of success. From this database we found only five interventions that we believed met reasonable evaluation standards using experimental, quasi-experimental, or rigorous econometric designs and showing convincing results on increasing high school graduation. The first column of Table 2 describes the five interventions. Two of the interventions focus on preschool, one on elementary school, one on high school, and one covering the K–12 years.

The preschool programs involved intensive educational programs with small group sizes and parental involvement. The Perry Preschool is a high-quality preschool program for 3- and 4-year-olds that was the focus of an experimental study using random assignment of applicants to the intervention or to a control group (Belfield, Nores, Barnett, & Schweinhart, 2006). The program was center-based for 2.5 hours

each weekday morning, with a child-to-teacher ratio between 5:1 and 6.25:1, teachers trained in special education and early childhood development, home visits by teachers for 1.5 hours a week to work with parents, and parent group meetings. The Chicago child–parent centers (CPC) provided early childhood education and family-support services emphasizing mathematics and reading skills, using high staff-to-student ratios. (The CPC preschool program included both a preschool and a school-age program, but we focus on the preschool program because of its higher effectiveness.)

Table 2. Education interventions and costs in present values at age 20

Intervention	*Extra graduates if intervention is given to 100 students*	*Present value cost per student*[a]	*Present value cost per expected high school graduate*[b]
Perry Preschool 1.8 years of a center-based program for 2.5 hours per weekday, child/teacher ratio of 5:1, home visits, and group meetings of parents	19	$12,500	$90,700
First Things First Comprehensive school reform of small learning communities with dedicated teachers, family advocates, and instructional improvement efforts	16	$5,500	$59,100
Class size reduction Four years of schooling (Grades K–3) with class size reduced from 25 to 15	11	$13,100	$143,600
Chicago child–parent centers program Center-based preschool program with parental involvement, outreach, and health/nutrition services; based in public schools	11	$4,700	$67,700
Teacher salary increase 10% increase in teacher salaries for all years K–12	5	$2,900	$82,000

Note. Data are from Belfield, Nores, Barnett, and Schweinhart (2006); Quint, Bloom, Rebeck Black, and Stephens (2005); Finn, Gerber, and Boyd-Zaharias (2005); Reynolds, Temple, Robertson, and Mann (2002); Loeb and Page (2000). Cost calculations are either from original sources or available from the authors of these works (for details see Levin, Belfield, Muennig, & Rouse, 2006)

[a] *The unit cost of delivering the intervention.*

[b] *The cost of delivering the intervention to 100 students and the induced extra attainment in high school and college for the new high school graduates. Discount rate is 3.5% (see endnote 6).*

The class size reduction intervention is based on Project STAR, a 4-year randomized field trial in Tennessee. Students were randomly assigned to larger classes of 22–26 students or smaller ones with 13–17 students for up to 4 years' duration, from kindergarten to third grade (Finn, Gerber, & Boyd-Zaharias, 2005).

The high school intervention is known as First Things First, a comprehensive school reform (Quint, Bloom, Rebeck Black, & Stephens, 2005). First Things First is an example of the current wave of urban high school reform, with an emphasis on small learning communities, instructional improvement, and teacher advocacy for each student. Small learning communities require that schools or subunits of schools are limited to no more than 350 students. In addition, key teachers work together for several years. Each student is matched with a staff member who meets with the student regularly, monitors student progress, and works with parents to support student success. Instructional improvement focuses on high expectations and rigor in the curriculum, as well as engaging approaches that focus on state standards.

Finally, the teacher salary increase proposal evaluates the impact on graduation rates of a 10% increase in wages across all K–12 years. Increasing pay would motivate existing teachers and attract higher quality workers to the teaching labor force. The teacher salary increase study by Loeb and Page (2000) estimated the effects of raising teacher salaries on graduation rates using state data with a 10-year time lag for assessing the impact of higher salaries on graduation rates.

Table 2 shows the effects of these interventions in terms of increasing the number of high school graduates per 100 students. Since most students would have graduated anyway, the effectiveness of each intervention was measured only by the additional number of graduates it yielded from 100 students receiving the intervention. The Perry Preschool was the most effective, with 19 new high school graduates; at the opposite end of the spectrum, increasing teacher salaries by 10% would be expected to yield 5 new graduates.

PUBLIC COSTS OF THE INTERVENTIONS

Each of the interventions requires an investment of resources as well as the costs of additional years of schooling for the successful graduates.[6] The third column of Table 2 reports the costs per participant receiving the intervention, based on the inputs or ingredients needed in each case, using economic cost accounting (Levin & McEwan, 2001) rather than school accounting procedures, which do not provide accurate cost estimates. When summarized as a present value at age 20 using a 3.5% interest rate, the cost per student ranges from $2,900 to $13,100.[7]

However, the total public cost must include two additional components. First, increasing the number of high school graduates will mean extra costs from extended attendance in secondary school as well as in college for those who are newly motivated to continue their educational careers. We include extra high school costs on the (conservative) assumption that only 2 extra years are needed to graduate. Additional costs for the small number of students who continue to 2-year and 4-year

colleges is based on National Center for Education Statistics (2003) data and our expected progression rates. Second, although much of the investment is spread over a larger pool of potential noncompleters, we divide them only by the much smaller number of additional or "new" graduates, that is, the additional "successes," rather than those who would have graduated anyway. We do not know a priori who, specifically, would or would not have graduated, and it is not possible to perfectly target the interventions only to those on the margin of graduation. Thus the interventions are provided to a large population of students who are educationally at risk, but it is only the additional graduates yielded that are the focus of the costs and benefits of the investments.[8]

The total public cost per new expected graduate, measured in present value at age 20, is given in the final column of Table 2. This cost includes several components. The first is delivery of the intervention to all students in the vulnerable group, which of necessity includes many who would graduate regardless. The second is provision of extra years of high school for each new graduate. The third is provision of postsecondary education for those who go on to further study. The cost total is divided by the expected increase in high school graduates. In total, these costs are considerably higher than the unit cost of delivering the interventions. They range from $59,100 for First Things First to $143,600 for an intervention to reduce class size. Expressed in this way, it is clear that a significant investment is required to generate and support each new high school graduate. At issue is whether this investment is worth making.

PUBLIC BENEFITS OF THE INTERVENTIONS

We have divided the fiscal benefits to the taxpayer into four categories: (a) additional tax revenues, (b) reductions in the public costs of criminal justice, (c) reductions in the costs of public assistance, and (d) reductions in the costs of public health. With additional education, it is expected that employment, productivity, and earnings of recipients will increase, generating growth in tax revenues. Additional education is also associated with declines in crime, public assistance, and dependence on the public health system. Rather than relying on simple statistical association, we tried to estimate the net effect of education on each outcome by following the evidence from the best causal estimates of others or from our own statistical estimations.

Education and Increased Tax Revenues

As reviewed by Rouse (2007),[9] empirical research establishes that the earnings benefits from education are genuinely causal rather than just correlational. That is, they are not attributable to unmeasured characteristics such as ability or aptitude. Nor are they attributable to "sheepskin" effects. The earnings premium for each additional year of education is substantively important, perhaps as high as 17%–20%

(Carneiro & Heckman, 2003, pp. 148–149). Consequently, when individuals are not adequately educated, the state is losing potential income tax revenues.

We calculate earnings by education level from the 2003 and 2004 March Current Population Surveys of the U.S. Census, which covers households across the United States.[10] The surveys have many advantages. They contain individual reports of many kinds of income (such as that derived from wages and interest), in addition to social insurance (such as unemployment insurance) and transfer payments. They also have a measure of annual earnings based on an individual's hourly wage, the number of hours worked per week, and the number of weeks worked per year.

There are significant cross-sectional differences in employment, unemployment, and earnings by education level. These translate into large differences in lifetime earnings, which are reported in present value terms at age 20 in the top panel of Table 3. These figures include all persons, not just those earning an income; so they account for the effect of education on labor force participation rates and job stability. Over a lifetime, each White male high school dropout earns a total income of $627,000 calculated in present value at age 20; for high school graduates with no further schooling, the figure is $949,000; for college graduates it is $2,014,000. Black male dropouts earn $339,000, which is only one fifth of the earnings of a Black male college graduate. Hispanic and other non-White male dropouts do relatively well, earning more than $600,000. But they, too, earn considerably more if they graduate from high school or progress on to college. For females, the absolute differences in lifetime earnings are lower, but the disparities across education levels are equally strong. High school dropouts earn $235,000–$300,000 over a lifetime, as compared with approximately $1,000,000 for college graduates.

Tax revenue gains associated with higher earnings from high school graduation are estimated using the TAXSIM computer program administered by the National Bureau of Economic Research (Version 6). TAXSIM is a set of programs and data sets that allow for simulation of an individual's U.S. federal and state income taxes. We used the tax calculator, a program that recreates each year's federal and state tax law, and the March Current Population Survey of the U.S. Census to obtain a sample of individuals and their income sources. Finally, we included property and sales tax differences by education, although they contribute only slightly to our overall estimates.[11]

The bottom panel of Table 3 reports the differences in total income tax payments calculated in present values at age 20. These mirror the differences in earnings. Over a lifetime, a male dropout pays $130,000–$212,000 in income taxes. A male high school graduate pays $232,000–$358,000, and a male college graduate pays $610,000–$854,000. For female students, the effect of education is equally strong, but the absolute values are lower. Female high school dropouts contribute $73,000–$82,000 in income taxes. High school graduates contribute $139,000–$156,000 and college graduates $405,000–$470,000. In our overall calculations we add sales and property tax payments, such that the disparities widen.[12]

Table 3. Total lifetime earnings and tax revenues in present valued at age 20

Population group	*High school dropout*	*High school graduate*	*Some college*	*B.A. degree or above*
Earnings				
Male				
White	$627,000	$949,000	$1,164,000	$2,014,000
Black	$339,000	$637,000	$896,000	$1,485,000
Hispanic	$602,000	$719,000	$826,000	$1,552,000
Other	$618,000	$862,000	$1,036,000	$1,839,000
Female				
White	$235,000	$479,000	$604,000	$986,000
Black	$300,000	$420,000	$576,000	$1,150,000
Hispanic	$272,000	$416,000	$558,000	$1,088,000
Other	$249,000	$455,000	$587,000	$1,025,000
Income tax payments				
Male				
White	$212,000	$358,000	$462,000	$854,000
Black	$130,000	$232,000	$338,000	$610,000
Hispanic	$184,000	$256,000	$346,000	$751,000
Other	$201,000	$319,000	$418,000	$815,000
Female				
White	$77,000	$156,000	$234,000	$425,000
Black	$82,000	$145,000	$217,000	$470,000
Hispanic	$73,000	$139,000	$176,000	$405,000
Other	$75,000	$150,000	$212,000	$417,000

Note. Figures are in 2004 U.S. dollars, corrected for incarceration probabilities. We assumed 1.5% productivity growth in earnings and a discount rate of 3.5% (see endnote 6). Income tax payments are averaged from two estimates, one in which taxes are filed by households and one in which taxes are filed by single persons. Education categories reflect highest education level completed. Data are from 2003 and 2004 March Current Population Surveys of the U.S. Census

Health Benefits

Increased educational attainment reduces mortality, changes health behaviors, and improves health outcomes[13] (Cutler & Lleras-Muney, 2006). The cumulative effects on health may be substantial: As a sharp reminder of differences in health status, Wong, Shapiro, Boscardin, and Ettner (2002) found that high school graduates

live about 6 to 9 years longer than dropouts. We therefore anticipate significant government savings as education levels rise because of the direct impact of education on health and the indirect impact through gains in income and private insurance coverage.

Medicaid eligibility is based on income rather than on health status (Iglehart, 1999), so those with more education are less likely to qualify. They are also more likely to have higher quality jobs that provide health insurance. All citizens are eligible for Medicare at age 65. But persons under 65 who are on social security disability income also qualify for Medicare, and their per enrollee costs are three times those of nondisabled enrollees (Keehan, Lazenby, Zezza, & Catlin, 2004). So, to the extent that education reduces the probability of disability, it should also proportionately reduce Medicare enrollment and therefore reduce public costs.

We use data from the Medical Expenditure Panel Survey (MEPS; U.S. Department of Health & Human Services, Agency for Healthcare Research and Quality, 2006), a nationally representative sample of more than 40,000 noninstitutionalized civilian subjects. Information is available on health-related quality-of-life scores and public insurance enrollments, as well as personal characteristics and medical expenses.[14] All analyses control for the highest educational level completed, sex, ethnicity, and age. Public sector costs data are from the National Health Accounts, which is generally thought to be more comprehensive than MEPS (Selden et al., 2001).[15]

Logistic analysis of the MEPS data shows significant lifetime differences in Medicaid and Medicare coverage across education levels. Across ethnic groups, dropouts enroll in Medicaid at rates of 15%–32% for men and 28%–51% for women. Graduates enroll at rates that are half this size, and those with college degrees enroll at rates of 1%–3%. A similarly strong relationship is found for Medicare coverage, although enrollment rates are lower (at 8%–13% for male dropouts and 6%–10% for female dropouts). Moreover, we believe that these enrollment differences reflect genuine differences in health status, not reverse causation (Cutler & Lleras-Muney, 2006).

These differences in coverage rates translate into differences in annual per capita costs and thus into lifetime costs. Table 4 shows the predicted total present value lifetime costs per member of each education category (not per enrollee). High school dropouts use government health insurance programs at much greater rates than graduates do, such that costs are much higher. The costs vary by sex, race, and ethnicity, but the educational impacts are significant. For example, a typical White female dropout will receive $60,800 in Medicaid and Medicare payments or services up to age 65. A White female high school graduate will receive $23,200, and a White female college graduate, only $3,600. The result is a significant lifetime public savings per expected graduate. The savings are greater for women, but they are also substantial for men.[16] The average savings per expected additional graduate is about $25,600 when expressed in present value at age 20.

Table 4. Total lifetime public health costs per capita in present values at age 20

Population group	*High school dropout*	*High school graduate*	*Some college*	*B.A. degree or above*
Male				
White	$43,500	$17,000	$12,900	$3,100
Black	$82,400	$34,200	$25,100	$6,000
Hispanic	$59,000	$23,300	$16,700	$4,000
Other	$61,600	$24,800	$18,200	$4,400
Female				
White	$60,800	$23,200	$15,900	$3,600
Black	$107,200	$48,500	$33,500	$7,800
Hispanic	$73,700	$29,200	$19,600	$4,400
Other	$80,500	$33,600	$23,000	$5,300

Note. Costs include Medicaid and Medicare. Discount rate is 3.5% (see endnote 6). Education categories reflect highest education level completed

Crime Benefits

Greater educational attainment is associated with lower criminal activity[17] (Farrington, 2003; Lochner & Moretti, 2004; but see Bernburg & Krohn, 2003; Grogger, 1998). The effect may be attributed to the rise in legitimate earnings associated with greater education, as well as to a lower tendency to engage in crime. Empirically, the association between education and crime is clearest when we examine rates of incarceration (Arum & Beattie, 1999). Although dropouts make up less than 20% of the overall population, they represent 37% of federal prison inmates, 54% of state prison inmates, 38% of local jail inmates, and 33% of probationers (Harlow, 2003). The educational patterns are stronger for men than for women, and they vary by race and ethnicity, but the correlation holds for each subgroup of the population. Important to note, crime imposes a significant and lasting public economic burden (Anderson, 1999). This burden includes costs for the criminal justice system (policing, trials, and sentencing); for incarceration, parole, and probation; for public restitution to victims (including medical care); and for government crime prevention agencies.[18]

We examined the relationship between high school graduation and five types of crime: murder, rape/sexual assault, violent crime (robbery and aggravated assault), property crime (burglary, larceny-theft, motor-vehicle theft, and arson), and drug offenses (separate from the violent crimes associated with drug trafficking).[19] These crimes impose high costs and are strongly influenced by education levels. Data on specific crimes are taken from the annual *Uniform Crime Reports* (Federal Bureau of Investigation, U.S. Department of Justice, 2004) and *Sourcebook of Criminal Justice Statistics* (U.S. Department of Justice, Bureau of Justice Statistics, 2002a).

Table 5 shows the absolute level of annual criminal activity by type of crime for the cohort of 20-year-olds. Row 1 shows annual arrests for 602 murders, 868 rapes, 17,522 violent crimes, 53,686 property crimes, and 75,054 drug-related crimes. Of these arrests, almost half (48%) involve individuals who have less than a high school education. Given the population of high school dropouts, it is possible to calculate the number of arrests per dropout each year; these are given in row 2. Crime/arrest ratios are given in row 3, which allows for calculation of crimes per dropout (row 4).[20] The next two rows report the average sentence per arrest and the average months of parole per arrest. Sentences vary from 233 months for murder to 52 months for property crime; parole rates are proportionately lower.

To estimate the impact of high school graduation on rates of arrest (by crime type) and incarceration probabilities, we rely on the empirical modeling of Lochner and Moretti (2004). Using pooled 1960–1980 Census and FBI data, their identification strategy is to relate the change in compulsory schooling laws to educational attainment. Using National Longitudinal Survey of Youth and Census data, they control for a rich set of background variables. The relationships appear consistent across the data sets. We note, however, that much of the information is more than 20 years old (such that incarceration rates are below current rates); there is no adjustment for underreporting of crimes by dropouts; and the results for rape are not consistent with those for other violent crimes (such that we apply estimates from the latter). Also, we could not estimate separate effects by race, ethnicity, and sex. Despite these caveats, Lochner and Moretti's evidence clearly suggests that increased rates of high school graduation would significantly lower criminal activity. As itemized in the final row of Table 5, we estimate the effect at 10%–20% per expected graduate.

The reduction in crime will, in turn, yield fiscal savings to the public.[21] We distinguish costs per arrest from costs per crime, using criminal justice system expenditures adapted from Belfield et al. (2006) and the U.S. Department of Justice, Bureau of Justice Statistics (2002a, 2002b). Costs per arrest are trial and sentencing costs (not all arrests result in convictions, but the costs of a trial are still incurred). Unit costs per arrest range from $917 for drug-related crimes to $12,991 for rape. We also include the costs to the government in payments to victims, including medical expenses not covered by the victim's insurance, losses arising directly from the crime (e.g., injury-related absence from work), and losses from time spent engaging with the criminal justice system.[22] These public-funded victim costs range from $33,415 for murders to $555 for drug-related offences. There are also costs of government programs specifically intended to prevent crimes (particularly for violence against women and for drugs).[23] We assume that these expenditures (for rape and drug-related crimes) will be reduced in proportion to the reduction in the numbers of crimes committed. Finally, incarceration costs must be added. The average monthly cost per inmate for incarceration is $2,500 and for parole is $155 (U.S. Department of Justice, Bureau of Justice Statistics, 2002a). Because there is no empirical evidence

on the relationship between education and probation rates and their associated costs, they are excluded from the analysis.

Table 5. Annual criminal activity by persons aged 20

Category of crime statistics	*Murder*	*Rape*	*Violent crime*	*Property crime*	*Drug offenses*
Total arrests	602	868	17,522	53,686	75,054
Arrests per high school dropout	0.000482	0.000694	0.014018	0.042949	0.060043
Crime/arrest ratio	1.7	3.5	2.3	6.5	10.0
Crimes per high school dropout	0.000819	0.002430	0.032240	0.279167	0.600432
Average sentence per arrest (months)	233	157	78	52	56
Average parole time per arrest (months)	90	48	35	23	48
Impact per new expected high school graduate	−19.6%	−19.6%	−19.6%	−10.4%	−11.5%

Note. Violent crime includes robbery and aggravated assault. Property crime includes burglary, larceny-theft, arson, and motor vehicle theft. The share of total arrests by high school dropouts is 0.48, based on incarceration rates. Data are from Federal Bureau of Investigation, U.S. Department of Justice, 2004 (Tables 39, 42, 43a), adjusted for undersurvey; the National Crime Victimization Survey (U.S. Department of Justice, National Archive of Criminal Justice Data, 2003); Harlow, 2003; Federal Bureau of Investigation, U.S. Department of Justice, 2004 (Table 1). Details of the calculations can be found in Levin, Belfield, Muennig, and Rouse, 2006 (pp. 43–49). Impact figures are from Lochner and Moretti, 2004, adjusting for effects of college progression rates (1.27 for some college and 1.64 for B.A. degree holders) and assuming effects of rape equivalent to those of violent crime

The largest proportion of potential public savings attributable to higher graduation rates derives from reducing violent and drug-related crimes, leading to lower rates of incarceration. There are significant differences by sex, race, and gender in the effects of high school graduation on reducing public costs, with female graduation rates imposing considerably smaller cost savings than male rates. The differences arise because of differences among population groups in criminal activity, in arrests, and in the effect of education on crime. The present value of lifetime costs for crime at age 20 associated with a typical dropout averages about $26,600.[24] We believe that this is a very conservative estimate of cost savings because we have not included crimes perpetrated below the age of 20, and our incarceration rates by education are limited to data that are two decades old and considerably lower than the rates today.

Welfare Benefits

Greater educational attainment is associated with lower receipt of public assistance payments or subsidies.[25] The relationship may be caused directly by lower rates of single motherhood or teenage pregnancy or indirectly through higher incomes that reduce eligibility for means-tested programs. The impact of education on welfare payments may be significant. Annually, the federal government spends $168 billion and state governments spend $25 billion on the following need-tested benefit programs: cash aid, food benefits, housing aid, training, and energy aid (U.S. Congress, Congressional Research Service, 2004). As incomes rise with education, eligibility for these payments will be reduced.[26]

To estimate welfare costs, we adopt a model derived by Waldfogel, Garfinkel, and Kelly (2007) for analysis of single mothers, using the Current Population Survey data of the U.S. Census. First, we identify the impact of education in reducing nonelderly welfare receipt from three sources: Temporary Assistance for Needy Families (TANF), food stamps, and housing assistance. We also include state-level payments on a proportionate basis. Second, we calculate the monetary savings from reductions in welfare receipt over the lifetime for those who are new high school graduates.

There are 1.3 million TANF recipients aged 21–64 annually. Caseloads are predominantly female (approximately by a factor of 10), with Black and Hispanic ethnic groups disproportionately represented. Notably, almost half are high school dropouts, with persons with some college representing less than 3% of recipients (U.S. Department of Health and Human Services, Administration of Children and Families, 2004). A similar pattern is assumed for housing assistance, of which there are 1.6 million recipients annually, according to the 2003 Current Population Survey of the U.S. Census. Finally, the most extensive program is food stamps, in which 9.6 million nonelderly adults participated in 2004. Again, education is important, with 30% of recipients being high school dropouts (Waldfogel et al., 2007, Table 8–2). Over a lifetime, these differences add up: Rank and Hirschl (2005) report that 64% of dropouts will use food stamps during adulthood, compared with 38% of high school graduates (p. 142).

According to Waldfogel et al. (2007), high school graduation is associated with a lower probability of TANF receipt by 40%, of housing assistance by 1%, and of food stamp use by 19% (controlling for personal characteristics). For those with some college or above, welfare receipt is even more sharply reduced: by 62% for TANF, by 35% for housing assistance, and by 54% for food stamps.[27] We apply these effects to the unit costs of welfare. The average monthly benefit is approximately $355 for TANF and $85 for food stamps, to which we add administrative costs (Barrett & Poikolainen, 2006; U.S. Department of Health and Human Services, Administration of Children and Families, 2004). For housing assistance, annual spending is $3,100 per person (U.S. Congress, Congressional Research Service, 2004). We apportion the costs to states proportionate to the federal cost allotments. Total costs per year are calculated as the impact times the unit cost.[28]

Table 6. Total lifetime public savings per expected high school graduate in present values at age 20

Population group	*Extra tax revenues*	*Health savings*	*Crime savings*	*Welfare savings*	*Total*
Average	$139,100	$40,500	$26,600	$3,000	$209,100
Male					
White	$202,700	$27,900	$30,200	$1,200	$262,100
Black	$157,600	$52,100	$55,500	$3,300	$268,500
Hispanic	$119,000	$37,800	$38,300	$1,200	$196,300
Other	$168,600	$39,000	$30,200	$1,200	$239,000
Female					
White	$109,100	$39,600	$8,300	$5,500	$162,000
Black	$94,300	$62,700	$8,600	$9,000	$174,600
Hispanic	$85,000	$46,500	$8,300	$3,100	$143,000
Other	$96,700	$49,200	$8,300	$3,100	$157,300

Note. An expected high school graduate is one who probabilistically terminates education after graduation, completes some college, or completes a B.A. degree. Gender- and race-specific probabilities are applied. Benefits are gross; that is, they do not count for additional educational costs. Discount rate is 3.5% (see endnote 6). Numbers are rounded to the nearest $100

Annual figures are extrapolated to calculate lifetime effects of increasing educational attainment. The average cost savings per expected new graduate is $3,000 over a lifetime. As with the other costs, the amounts are calculated as an average across the total population of dropouts, of whom only a portion actually receive public assistance. The largest proportion of the savings comes from reductions in TANF payments, although there are nontrivial savings in housing assistance and food stamps as well. The total figure is relatively low (compared with the other domains) for the following reasons: Welfare is time-limited; children and the elderly receive high proportions of welfare funds; and men do not receive much welfare (but they constitute a large proportion of all high school dropouts).[29] Nevertheless, the cost savings are noteworthy, particularly for female dropouts.

THE RETURNS ON INVESTMENTS IN ADEQUATE EDUCATION

High school graduation is associated with higher incomes, better health, lower criminal activity, and lower welfare receipt. This has private benefits to the better educated individuals, but it also produces significant public benefits. Table 6 shows the value of the lifetime economic benefits to the public per expected high school graduate. Each new graduate will, on average, generate economic benefits to the

public sector of $209,100. These benefits are composed of additional tax revenues of $139,100, health savings of $40,500, crime savings of $26,600, and welfare savings of $3,000. These are gross benefits and do not account for what it costs for the necessary educational interventions to raise the graduation rate or fund college progression contingent on graduation. The amounts vary by sex, race, and ethnicity, with high school graduation providing a gross public saving of $196,300–$268,500 for male graduates and $143,000–$174,600 for female graduates.

It is important to note that we are not proposing that policy be based separately on net present values for each sex, race, or ethnicity, but on the overall finding that the benefits to the taxpayer exceed fiscal costs for all groups. We present disaggregated figures to show that the conclusions are not in fact driven by one group and that population-wide interventions are easily justified. A broader perspective must be adopted to decide where the most urgent investments should be made. As noted above, both "levels" and "differences" are important, and it is necessary to understand the causes of any fiscal differences. These causes might include the potency of education's effects based on the quality of available schools, the progression rates to college, the extent of involvement in the labor market (and society's valuation of non-participation), and the receipt of public services, as well as factors such as labor market discrimination. Investigation of all these factors is beyond the scope of this article, and so we emphasize that – as shown the row labeled "Average" in Table 6 – the gross public benefits from graduation are very large for all cases.

The net public benefits of high school graduation are substantial. Table 7 shows that the benefits easily exceed the costs for each intervention. The first row shows the educational cost per new graduate, that is, the sum of intervention and attainment costs for each of the five interventions that have been shown to increase graduation

Table 7. Net public investment returns per expected high school graduate in present values at age 20

	Interventions to raise high school graduation rates				
Per additional expected high school graduate	*First things first*	*Chicago child-parent centers program*	*Teacher salary increase*	*Perry preschool*	*Class size reduction*
Costs (C)	$59,100	$67,700	$82,000	$90,700	$143,600
Benefits (B)	$209,100	$209,100	$209,100	$209,100	$209,100
Benefit/cost ratio (B/C)	3.54	3.09	2.55	2.31	1.46
Net present value (B – C)	$150,100	$141,400	$127,100	$118,400	$65,500

Note. Numbers are rounded to nearest $100. Costs include delivering the intervention and any subsequent public subsidies for high school and college. Discount rate is 3.5% (see endnote 6)

rates. These costs range between $59,100 and $143,600 (see Table 2). The second row shows the average lifetime economic benefits per expected high school graduate (see Table 6). The last two rows show the benefit/cost ratio (the factor by which the benefits exceed the costs) and the net present value (the difference between the benefits and the costs). Taking the median intervention – a teacher salary increase – the benefits are 2.55 times greater than the costs, and the net present value from this investment is $127,100 per additional high school graduate. For the intervention with the highest net return – First Things First – the benefits exceed the costs by a factor of 3.54. For the intervention with the lowest net return – class size reduction – the benefits exceed costs by a factor of 1.46, still a substantial bonus.

The aggregate consequences of raising the high school graduation rate for each age cohort are economically large. Each cohort of 20-year-olds includes more than 700,000 high school dropouts. If this number were reduced by half through successful implementation of the median educational intervention, the net present value economic benefit would be $45 billion. This figure is an annual one because each cohort is assumed to include the same number of dropouts in the absence of powerful interventions. And it does not count the private benefits of improved economic well-being that accrue directly to the new graduates themselves. If we were able to obtain these fiscal benefits over a decade, we would approach fiscal savings of about half a trillion dollars.

SENSITIVITY TESTS

The net economic benefits of investments to raise high school graduation rates appear to be very large. We suspect that this conclusion is unlikely to change if alternative assumptions are applied. Our economic analysis, based on the best available evidence, has used conservative assumptions for each domain. Clearly, if we can identify more effective interventions or if these interventions are less effective when brought to scale, net benefits will be affected. But these influences are not easily measured.

A number of other assumptions may affect the results positively or negatively.[30]

First, by looking at 20-year-olds, we have excluded any prior benefits such as reductions in juvenile crime or teenage pregnancy, both of which are associated with attainment. We have also not calculated the additional benefits to students who prospered from a more enriched education if they would have graduated anyway. They may have benefited from the enrichment, but we have only accounted for effects of increased graduation rather than academic enrichment of existing graduates.

Second, because of insufficient data, we have not counted any intergenerational, family, or civic benefits from graduation.

Third, because sample surveys undercount those in poverty, benefits would likely increase if more accurate data were available (Schmitt & Baker, 2006). In contrast, factors that would reduce the return include the following: a fall or slowdown in market wages as more graduates enter the labor market; an increase in the average

cost of delivering each intervention; no progression to college by new high school completers; and a higher discount rate. We test the two most conservative assumptions (no college progression and a discount rate of 5%) and find that the net economic benefits are still strongly positive. The overall trend for several decades has been that demand for skills has been rising faster than supply, countering a tendency for the relative earnings of high school graduates to fall as their numbers increase (Autor, Katz, & Kearney, 2008; Juhn, Murphy, & Pierce, 1993).

CONCLUSIONS

In this study we have found that the monetary value of the public benefits of reducing the number of high school dropouts exceeds considerably the required public costs of successfully validated educational interventions.

Three aspects of this investigation are worth noting. First, a large fraction of the total public benefit is a result of the higher earnings of those with more education. The earnings effect is both direct, in raising tax revenues, and indirect, in reducing reliance on public services. Second, we express our figures as totals across all levels of government. But the benefits from and the costs of high school graduation are not spread evenly across federal and state or local governments. The federal government receives most of the income tax benefits and recoups the larger proportion of health and welfare savings but the lesser proportion of criminal justice system savings. In contrast, state and local governments incur most of the educational costs, including the extra years of high school. Thus our findings have implications for the just distribution of the burden of funding for educational interventions.

Third, we selected only those interventions for which rigorous and credible evaluations were available and which showed positive impacts on reducing the dropout rate. Although this process is supported by mainstream authorities in evaluation (Mervis, 2004), only five interventions met these criteria. Given the clear economic benefit of raising attainment levels, it is imperative to seek more new ways to effect such change. New interventions that appear promising include combinations of features such as small school size, high levels of personalization, high academic expectations, strong counseling, extended-time school sessions, and competent and appropriate personnel (Quint, 2006). But one effective strategy that could cut the cost considerably would be targeting interventions to those students most likely to drop out or most likely to benefit from them. When an intervention is targeted to an entire school (including those students who would have graduated anyway), it requires more resources than if it were more finely targeted to a particular group of the most vulnerable students. Thus targeting the intervention or portions of the intervention, if possible, represents a way of reducing the cost for each additional student who graduates. However, such practices may also have negative consequences through greater segregation and stigmatization (Oakes, 2005).

Overall, investment in adequate education for all children is more than just good public investment policy with high monetary returns. A society that provides fairer

access to opportunities, that is more productive, and that has higher employment, better health, less crime, and lower dependency is a better society in itself. That the attainment of such a society is also profoundly good economics is simply an added incentive.

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NOTES

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[2] Although the main findings of the research will be reported here, more detail can be found in Levin, Belfield, Muennig, and Rouse (2007).

[3] See, among many, Swanson (2004), Greene (2002), Warren (2005), Kaufman (2004), and Mishel and Roy (2006). Studies typically use the same method of measuring: the number of completers divided by the student population for a given age or grade cohort. Except in the study by Mishel and Roy, calculations are based on the Current Population Survey or the Common Core of Data, both of which have shortcomings in terms of misreporting, incomplete coverage, and classifications. Studies also vary in how they account for private school enrollments, special education students, and migration.

[4] Many Hispanic and other non-White persons are immigrants, some of whom did not attend U.S. schools. Although a large fraction of the immigrant population has less than a ninth-grade education or did not complete high school, this circumstance cannot be fully addressed by educational reforms within the United States. However, the benefits and costs are not affected by whether the dropout was an immigrant.

[5] These rates of continuation and college completion are based on a relatively disadvantaged population in which continuation rates are for the bottom quartile in reading on the National Educational Longitudinal Study of 1988 (known as NELS 88), a data set of the U.S. Department of Education that follows eighth graders into adulthood. The completion rates are based on the bottom third of students in socioeconomic status in the NELS 88 data set. See Levin, Belfield, Meunnig, and Rouse, 2006 (pp. 7–8).

[6] More detail on costing procedures is found in Levin et al. (2006, pp. 14–20).

[7] Present value refers to a single number that summarizes the value of a stream of costs disbursed over time where an annual rate of interest (3.5%) is applied to take account of the time pattern of spending (Moore, Boardman, Vining, Weimer, & Greenberg, 2004). In this case, the present value of the costs and benefits of the investment will be summarized at age 20 (Levin & McEwan, 2001, pp. 90–94). For the Chicago child–parent center program we use the cost estimates reported in Reynolds, Temple, Robertson, and Mann (2002). For the Perry Preschool project we use cost estimates reported in Belfield, Nores, Barnett, and Schweinhart (2006). For both of these programs we deduct the cost savings from special education and grade retention. For the intervention to increase teacher salaries we base our calculations on the average teacher salary in 2004 of about $46,000 (U.S. Department of Labor, Bureau of Labor Statistics, 2004) and class sizes of 25. Because there are no reported costs of the resource requirements for class size reduction used in Project STAR, we estimate the costs in terms of extra teachers and classrooms per 100 students expected from reducing the median class size from 24 pupils to 15. Finally, First Things First is a bit more complex because it requires a range of additional resources. These include reducing class size from 26 to 20 students and adding

a counselor, a technical assistant, and a special education teacher for every 350 students. The cost of these resources is estimated using the ingredients approach in Levin and McEwan (2001).

[8] For example, to effectively target the intervention, teacher pay would have to be raised only for classes with high numbers of dropouts.

[9] The analysis of additional education and tax revenues was carried out by Cecilia Rouse (2007). Also see Levin et al. (2007) and the technical detail in Levin et al. (2006, pp. 24–30).

[10] The Current Population Survey provides information on income and wages for a national sample of households and individuals over the previous year. Data from 2003 and 2004 are combined to ensure a sufficient sample size and are weighted using BLS weights. The sample includes only those who completed at least ninth grade. We start calculating earnings as of age 20; earnings at younger ages typically are low and sporadic, with very high proportions of dropouts not in the labor force. The March Current Population Survey does not distinguish high school graduates from GED holders, and it includes only the civilian, noninstitutionalized population (persons in the military or in jail are excluded). Below, we adjust for differences in incarceration rates by race, ethnicity, and sex, although this adjustment affects the final figures only slightly.

[11] We assume sales tax at 5% of income. To calculate the effect on property taxes, we use the 5% sample of the 2000 Census. We estimate that households headed by a dropout contributed about $150 less in property taxes in 1999 (in 2004 dollars) than households headed by high school graduates and about $570 less than those with at least a college degree. That said, these estimates for property taxes must be interpreted cautiously. First, the causality between education and property tax payments is unknown. Second, property taxes are based on housing values, and we can only determine payments made jointly by the household. Third, renters pay property taxes indirectly. Fourth, many states offer property tax relief for low-income homeowners, which may not be included in the Census figures.

[12] We also calculate lifetime earnings with different assumptions about productivity growth and the discount rate. We assume a productivity growth rate of 1.5%, which follows convention; of course, the rate may be higher or lower over the following decades. These calculations are available from the authors.

[13] The value of health benefits from additional education was calculated by Peter Muennig (2007), with details of the calculations in the technical report (Levin et al., 2006, pp. 31–39).

[14] After eliminating non-U.S.-born subjects, who typically are ineligible for Medicaid and Medicare, those aged under 25 and over 65, and subjects with missing values, the sample is 12,299.

[15] On average, MEPS figures are about 7% lower than similar costs from the National Health Accounts. Also, the MEPS excludes Medicaid payments to hospitals that disproportionately serve Medicaid patients.

[16] We test for sensitivity. If the discount rate is raised to 5%, savings will be somewhat lower. If there is no survival advantage to extra education, the incremental returns increase very slightly. The savings also increase if all subjects are assumed to survive until age 65, a scenario compatible with no account for premature mortality. The tests provide a boundary of +/−20%.

[17] The calculation of benefits from reduced costs of criminal justice due to increased education was carried out by Clive Belfield.

[18] The social burden of crime will also be significant, including costs directly imposed on victims (such as lower quality of life); transfers of assets from victims to criminals; avoidance costs by potential victims; and productivity losses from participation in criminal activity rather than work.

[19] These five crime types make up approximately 30% of all crimes, but most other crimes are misdemeanors. A sixth crime—child abuse—should be considered because of the significant burden it imposes. However, data are inadequate to permit an accurate costing exercise. Data limitations also preclude analysis of white-collar crimes such as fraud.

[20] Official crime rates are considerably lower than victim-reported rates because many crimes are not reported to the authorities. Also, there is no information on whether crime/arrest ratios vary by ethnicity. Finally, the *Uniform Crime Reports* do not report crimes for 100% of the population; coverage is typically 93%–96%. Table 5 uses a conservative estimate of the crime rate. Thus the calculations are likely to be conservative, not least because they also exclude juvenile crime impacts (for our cohort, these are in the past).

[21] Throughout, the model parameters are conservatively derived. Notably, recent cost estimates by Cohen, Rust, Steen, and Tidd (2004) are considerably above those applied here; and no juvenile crime effects are counted (because for our 20-year-old-cohort, these are in the past).

[22] These losses are calculated directly from the National Crime Victimization Survey. This survey is the only data set available, but it, too, significantly understates victim costs. Only expenses incurred within 6 months of the crime are reported; hospital bills are sent to insurers, and mental health costs are not included (Cohen, 2005). Therefore, we add two additional costs. Cohen estimates that the average amount paid to each victim from the Crime Victims Fund is $2,000 (p. 63); we apply this for murder, rape, and violent crimes. Macmillan (2000, Table 1) estimates annual earnings losses for victims at 13%; we apply this to rape and violent crimes, and for murder victims we assume 10 years of lost earnings and tax revenues at a high school graduate level.

[23] Excluding child juvenile services and education costs, the federal government commits almost $8 billion annually to the war on drugs, with 60% routed through the Departments of Homeland Security and Justice; in addition, state governments commit $2.1 billion.

[24] We take account of the decay rate of crime according to age, based on the pattern of criminal activity reported by age (Federal Bureau of Investigation, U.S. Department of Justice, 2004, Table 1). Criminal activity peaks around age 20 and decays by a few percentage points each year.

[25] Calculated by Clive Belfield, based on analysis by Waldfogel, Garfinkel, and Kelly (2007).

[26] However, better educated persons are better able to navigate the welfare system and claim benefits to which they are entitled (Osborne Daponte, Sanders, & Tayor, 1999). This offsets somewhat the gains from reducing welfare entitlements through increased educational attainment.

[27] Pre-welfare-reform figures reported by Jayakody, Danziger, and Pollock (2000) are not significantly different. Grogger (2004) finds very strong effects for females across all types of welfare: High school graduates are 68% less likely, and those with some higher education are 91% less likely, to enter welfare rolls than are high school dropouts.

[28] Because TANF is time limited, we assume no receipt after the cohort reaches the age of 40. The method used here is annualized, so durations of welfare receipt are not important.

[29] The estimates are conservative. Grogger (2004) reports larger effects of education. We do not count any welfare receipt before age 20. We omit welfare benefits from other programs (mostly at the federal level) where we have insufficient evidence as to the influence of education. Finally, we do not count any cross-family effects such as welfare receipt for children of dropouts.

[30] Details on a sensitivity analysis are found in Levin et al. (2006, pp. 59–63).

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SECTION IV

SCHOOL AND SCHOOL REFORM – NATIONAL PERSPECTIVES

This section examines recent discussions on school reforms and policies for school development, mostly from a local and national perspective, using a few cases as examples. As emphasized in previous chapters, schooling, school development and school reforms are an essential part of the development of modern society and modern forms of society. Generally speaking, this fundamental aspect has not been seriously questioned, although there have been occasional arguments for a school-free society. The projects for school development and the policy definitions for the institutional role of school are, however, always realized on the basis of special national and local traits and provisions based on the historico-social conditions and politico-ideological setup of each country. One of the main issues in modern discourse is to reconcile the national needs for development with global developmental trends and pressures for change. Along with increased globalization there has also been an increase in cultural diversity, creating pressure in schools for culturally more sensitive pedagogical practices than before – at least in countries and schools that have traditionally been relatively homogeneous in cultural terms (such as Finland). On the other hand, transnational organizations (such as the EU, OECD) are constantly creating joint rules for integration which are reflected in national decisions in education policy and are, in a more or less direct manner, also setting guidelines for decision-making. The development projects and reforms in schools are, however, also about striking a balance between pedagogically motivated development objectives that are internal to the school, and demands for reforms dictated by political ideologies. On a general level, the situation can be seen in terms of seeking a balance between two different rationalities, i.e. as a struggle between the *pedagogical* (or Bildung) rationality and the *politico-instrumental* rationality. The first can be characterized on the basis of the traditional educational function of school, with an emphasis on the classic ideas of reason, self-determination, construction of personal identity, and emancipation, among others, as the regulative principles guiding school reforms, which also include the requirement for the development of a critical relationship to society in the rising generation. The second is characterized by the idea of the societal function of the school, the essential objectives of which are determined, without any special pedagogical aims, on the politico-ideological objectives and agenda prevailing at any given time.

This division is, of course, a rough generalization, and not mutually exclusive. The tension and polarization between pedagogical rationality and instrumental politico-ideological rationality can, however, be easily identified in the articles included in

this section. It seems that national reforms are guided by a politico-ideological wave of development, the principles and contents of which are largely determined by the market-driven ideology of neoliberalism, powered by transnational organizations and institutions. Of course, this is not the whole picture of the analyses on development trends and reforms in different countries. While the development of the Finnish school system in recent years has been described in terms of tension between the strong traditional idea of *Bildung* and politico-ideological goals for reforms (see the article by Siljander), the developmental trends in the German educational system are described in terms of changes strongly dominated by political agenda springing from the ideology of neoliberalism (articles by Schönig and Fuchs). In the other two articles of this section, the viewpoint on the needs for development in schools, and on the relationship between the pedagogical and the political, is somewhat different. Stables' article, grounded in the context of England, questions the widely adopted doctrine in politics and education policy according to which a long compulsory formal education is necessary for individual learning processes and development of society. In other words, it is suggested that there are no longer sufficient *pedagogical* grounds for it in the modern world. The latter article (by Lopes and Macedo) describes the way in which the politico-ideological hegemonic setups are an essential part of curriculum policy and school practices. This can be interpreted in such a way that the pedagogical motives are subordinate to the political ones. According to the authors, rational change calls for identification and de-construction of the political hegemony that determines the curriculum policy of schools.

PAULI SILJANDER

11. SCHOOL IN TRANSITION

The Case of Finland

INTRODUCTION

This article examines, from an exclusively national perspective, the changes that have occurred in the Finnish educational system and in manners of thought relating to Finnish schools. Finland's educational system has, in recent years, been the subject of exceptional international interest, following the country's PISA success. The specific characteristics of the Finnish school institution have been analysed and brought to the attention of an international readership widely and diversely, to the point that – from a close-hand or internal perspective – an observer might find it difficult to discover anything new to say (see for example Aho, Pitkänen, & Sahlberg, 2006; Sahlberg, 2011, 2015; Välijärvi et al., 2007; Simola, 2005; Siljander, 2005). Most analyses have looked for an explanation to the 'unexpected' PISA miracle.

This text does not propose to discover explanatory factors for the success of the Finnish school system, nor to describe the origins of that success. Instead, it aims to delineate the relationship between politics, educational policy, and pedagogical thought in the context of the Finnish school. The principal question is, in other words, 'How are the lines and demands of educational policy and the socio-political linked to pedagogical thinking on schools, and to school reforms?' The question is of course a traditional one. The origins and development of the modern school are part of the birth of modern society. The two bodies – modern school and modern society – cannot be separated, except for the purposes of analysis. Or, as Jürgen Oelkers contends, 'social revolution' cannot be understood without 'pedagogical revolution' (Oelkers, 1983). From a historical perspective, they are nearly identical.

Of course, this general observation does not justify the conclusion that relations between the socio-political and pedagogical are unproblematic, self-evident, or transparent. In fact, at issue is a tension that classical school theories have already raised: namely, 'How can a school's pedagogical goals and the demands of a society – that is, societal determination – be reconciled?' This concerns, in large part, the autonomy of a school; in other words, to what extent a school institution can define its objectives and relations to the rest of society from its own pedagogical starting points. Autonomy can, of course, be merely 'relative' in nature, as representatives of classical *Geisteswissenschaftliche Pädagogik,* among others, have stressed. On

P. Siljander et al. (Eds.), Schools in Transition, 191–212.

the one hand, a school cannot become isolated; on the other, it cannot establish itself uncritically as an arena for the implementation of external ideological or economic demands, or as a medium for the 'trends of the time.'

Most national school reforms are currently wrestling with the same issue. With globalisation, international trends and reform demands are appearing with particular strength. Despite cultural and national differences, global trends are shaping national school reforms, making them more uniform and similar (Kallo & Rinne, 2006; Sahlberg, 2015). As a consequence, the question 'To what extent can the contents and goals of reform be controlled through pedagogical arguments?' is increasingly timely.

The following chapter investigates the key turning points in the development of Finland's school institution since 19th century over the past fifty years. First I describe the guidelines of educational policy and Bildung conception in the 1800s, and then the turning points and changes from 1960 to the present. My principle focus is on the interaction between politico-ideological conceptions, officially defined goals of educational policy, and pedagogical manners of thinking – as those ideas, goals, and manners of thinking appear as general development principles and official policy changes relating to the development of Finland's education system. This text does not scrutinise the implementation of those principles and policy changes in the practices or day-to-day operations of a school.

BILDUNG: THE POWER OF A SMALL COUNTRY

One cannot understand the current situation of the Finnish school and its recent history without acknowledging Finland's position between two cultural and societal systems, on the border between east and west. Finland has long historical and cultural ties to Sweden in the west and to Russia in the east. Those ties include (1) a joint border of over a thousand kilometres with Sweden and Russia; (2) before governmental independence in 1917, a status for over a century as the 'autonomous grand duchy,' under Russia's political administration; and (3) before Russian control, a position for centuries as part of the territory of Sweden. The above history is particularly significant because the basis for and guidelines of Finnish *Bildung* politics were created in the 1800s, when Finland had to build a national and cultural identity between the opposing power positions of Sweden and Russia. Finland had been part of Sweden until the early 1800s, but power play between Napoleon and Alexander I meant that the country was detached from its connection (as a state) to Sweden and attached to Russia in 1809.

Besides the change in political and administrative power, this shift in governing nation meant a redefinition and repositioning of cultural relationships. Russia's Tsar Alexander I promised Finland a comparatively autonomous position, offering the possibility to create independent, national *Bildung* policy (Vahtola, 2004, pp. 250–252). The effort to do so received its most significant ideological stimuli from Hegelian philosophy and traditions of thought, whose main representative,

J. V. Snellman (1805–1881), later received the title of 'Finland's national philosopher'. Thanks to Snellman, Hegelian philosophy gained a strong position in Finland's academic milieu, decisively influencing Finnish national *Bildung* policy and the basic lines of pedagogical thought in the 1800s. The redefinition of Finland's state position while a subordinate of Russia demanded the recognition and consideration of two fundamental issues.

Firstly, in order to remain an independent nation, Finland had to create – within the administrative bounds of Russian governance – as strong and self-governing a national *Bildung* as possible. Secondly, in addition to state separation, Finland had also to detach itself ideologically and culturally from Sweden, and to develop its *Bildung* policies towards the recognition and strengthening of its own language and culture. From this position, Snellman created the foundation for national *Bildung* thinking, in a powerful push to create a national consciousness and identity through language, literature, history, science, art, and a *general national Bildung*. The kernel of Snellman's programme, which later became the hallmark catchphrase of Finnish *Bildung* thinking, was that a small nation must reclaim its right to exist through a high level of *Bildung*, not through material or ideological power.

> Finland can do nothing through violence; the power of Bildung is its only salvation. (Snellman, 1931, p. 134)

This principle has been brought up repeatedly in Finnish discourse as the determining guideline of educational policy. In recent years, it has also become a common slogan in the mouths of politicians, in the form of the phrase 'education, education, education'. The people of a small, sparsely populated nation can become recognised internationally – above all – through the aid of *Bildung* and education, as the 'PISA' discussion of recent decades has demonstrated. The central principle of the Snellmanian programme of educational policy was as follows: the more a population participates in *Bildung*, the more powerful *Bildung* becomes as a constructor of that nation's identity. 'The issue,' declared Snellman, 'is, simply, how the majority of a nation can become part of a progressive *Bildung*' (ibid.).

According to Snellman, a strong national determination towards *Bildung* may be a sufficient counterforce to external interests and pressures.[1] On the one hand, Snellman's policy of educational thinking invoked the participation of the entire Finnish nation and, in particular, the needs towards *Bildung* of the Finnish-speaking populace. On the other, Snellman empathized dialectics between the national Bildung and general humanity: '*Bildung* that is not national cannot be right, general *human Bildung'* (ibid.).

It is important to note that Snellman's *Bildung* programme was, concurrently, a wide-reaching societal project in which the state had a central role and responsibility. From the basis of Hegelian philosophy, Snellman developed a *Bildung* theory according to which the state ultimately represents the general will and reason (Vernunft) of the people. Therefore, the responsibility for *Bildung* could not remain dependent on the varied, contradictory interests of civil society. Rather, *Bildung* was

to be implemented with the aid of an *educational institutions* maintained by the state. This national *Bildung* project demanded a rising level of general education; from that viewpoint, the development of the public school was a key societal issue.[2]

While heated debate over the concrete forms of educational system occurred in the late 1800s or early 1900s, the most durable part of the Snellmanian *Bildung* doctrine remained, directing the reforms of the Finnish school system until the 2000s, declaring that the power of a small nation is *Bildung*, and that the power of *Bildung* is in its generality, not in 'specialness' or elitism.

BILDUNG AND THE FINNISH WELFARE STATE

While the above *Bildung* programme was alive and strong in the late 1800s, the tangible effects of that programme on the development of the Finnish educational system were gradually diluted. Lampinen (1998) states that the years following Finland's governmental independence in 1917 were comparatively quiet in terms of the advancement of the country's educational systems. The act for compulsory public education was adopted in 1921, but the state's role as director of *Bildung* policy was, however, relatively passive.

Definitive change occurred during so-called 'post war reconstruction' after World War Two and in the 1960s in particular in relation to educational policy. Two general causes spurred this transition: on the one hand, a brisk change in the structure of society, and on the other, a strong rise in political ideologies demanding societal justice, equality, and democracy. In the 1960s, Finland was still broadly an agrarian society; over thirty-five percent of its population made a living through farming, or from professions linked to farming. In neighbouring Sweden, the equivalent figure was fourteen percent (Alestalo, 1985). In approximately ten years, a drastic change occurred.

An agricultural surplus led to the wide-reaching cessation of small farms, causing migration from the country to the city, and a search for work outside national boundaries. By the late 1960s, over 300,000 Finns had moved abroad, principally to neighbouring Sweden and Canada. For a small country whose entire population numbered around 4.5 million, this was an enormous loss. Securing the material and mental welfare of the populace became a matter of the fate of the nation. The governing principles of Finnish educational policy after the Second World War can be regarded as part of the project of building the welfare state, in which education was given a particularly important role.

Ideological Goals: Economic Growth and Societal Equality

In Finland and other Nordic countries, the idea of 'welfare' and the 'welfare state' received exceptionally broad content; it has, therefore, been usual to refer in particular to a 'Nordic model of the welfare state' (Kettunen, 2001b; Antikainen, 2006). The fundamental ideas of the Finnish version of the model were formed in

the early 1960s by Pekka Kuusi in his work *1960s Social Politics* (Kuusi, 1961), which tied together a declared necessity for economic growth, for social rights based on citizenship, and for welfare services secured by the state. Therefore, in the Finnish model of the welfare state, demands for economic growth, social equality, and democracy were linked ideologically.

In the political programmes of the welfare state, the fundamental services of a society – in particular, health, work, and material livelihood – were seen as universal social rights, to which every citizen should have access, regardless of birth and social background. Kettunen (2001a) contends that, in Finland, the welfare state project also involved a strong ideological charge. Neighbouring Sweden, with its social democratic ideologies of the welfare state defined its societal model in terms of a 'third road' between American capitalism and Union communism. In Finland, the structures of the welfare state were built more cautiously, avoiding a polarisation of ideologies and observing instead the necessities of economic growth. However, at the same time, Finland's position between two 'growth-oriented' nations – Sweden and the Soviet Union – was emphasised.

> If we are to continue our own life between Sweden and the Soviet Union, two growth-oriented and growth-capable nations, we are doomed to grow. (Kuusi, 1961, p. 34)

The situation was very familiar to the Finns. Finland's position as a small country between the east and the west became part of a debate on the principles of the ideological politics of the welfare state. The connections to Swedish society and to the Swedish cultural inheritance – whose concrete embodiment was also the 1960s migration described above – were strong. On the other hand, in the atmosphere of the cold war, relations with the large easterly neighbour were to be guarded carefully.

In these societal conditions, the importance of education was set in a new framework; or, more precisely, the Snellmanian idea of *Bildung* was revived, in the rhetoric of educational policy, as a precondition of the welfare and progress of the Finnish nation. However, *Bildung* as a concept disappeared from the discourse of the researchers and politicians of education, and was replaced with '*education*'. Education was seen as a citizen's universal right and as part of the *social security of the welfare state*, security to which everyone was entitled, independent of birth, gender, location, social station, and economic situation. As occurred elsewhere in Europe, the 1960s political movement in Finland raised democracy, societal equality, and the demands of justice to the centre of political discussion, accelerating reforms related to the education system.

Of those education-related reforms, the first and most significant was the move to a Finnish comprehensive school, a move by which the earlier, parallel system of grammar schools and elementary schools became a unified, nine-year comprehensive school for all pupils. I do not consider it necessary in this article to describe the content and particulars of these reforms, which have been detailed widely and thoroughly in international discussions in recent years (see for example Aho et al.,

2006; Sahlberg, 2011; Simola, 2005). In summary, the structural change in Finnish society, which was more intensive in Finland than in other OECD countries – and invoked the idea of the 'welfare state' as a guarantor of the material and mental welfare of citizens – provided a basis for changing the entire educational system. Education became an important project of the welfare state.

The above is, however, only one side of the coin. The other side is that perhaps never before, and presumably never again, has a hierarchical relationship been so explicitly and officially defined between national policy, educational policy, and a school system. At the top of that hierarchy were politico-ideological goals for the development of society, goals to be implemented through educational policy and for which the education system as a whole, including individual educational institutions, was to act as an instrument. Education was defined – in other words – as a part of general societal politics; and the new task of the various sub-systems of education were to *implement* policy goals (see for example Komiteanmietintö, 1973). This 'top-down' logic was not seriously disputed. On an ideological level, the autonomy of the Finnish school was heavily limited. In practice, institutions of education were left with the freedom to implement these changes in a relatively independent manner.

From a pedagogical perspective, the relationship between the external and internal – between demands directed at schools from the outside and internal development needs – does not present a problem, as long as the motives and goals of both external and internal are congruent, and can accommodate each other without contradiction, i.e. when, in Snellman's terms, they both serve human *Bildung.* It is not an exaggeration to state that the Finnish implementation of the welfare state reconciled the external and internal successfully, although political debate on the topic was intense. The next section examines how pedagogical principles defined the content of school reform and were linked to the above, more general political ideology.

Pedagogical Principles: Paradigm Shift I

Jürgen Oelkers (1994) has described the development of the history of educational theory as a battle – or, alternatively, the movement of a pendulum – between two paradigms opposite in their basic assumptions. One might call the first paradigm a 'paradigm of external influence' and the second 'a paradigm of internal development' or perhaps also a 'paradigm of self-regulation'. The difference between the two paradigms concerns to what extent one views human growth processes such as learning as the effect of external pedagogical intervention, or as the *self-regulation* of individuals. Of course, no precise answer or 'final truth' can be offered in response. Instead, I contend that we may examine how these ways of thinking have become linked to the ideologies of educational policy and to solutions relating to the practical arrangement of teaching. In early 1900s Finland, a strong belief was expressed in individual differences and in the genetic determinability of learning, or, in other words, in the internal regulation of the processes of learning and growing. These thoughts were supported by differential psychology and its various

methods of testing (Kivelä & Siljander, 2013). Although pedagogical practices may have been teacher-led and authoritarian in nature, the basic ways of thinking about learning and the educability of pupils leaned on individual differences that could be demonstrated through psychological testing. Differential psychological thinking models influenced common pedagogical thought, although its concrete applications were not very systematic.

This situation changed after the Second World War. Representatives of the behaviourist theory of learning stressed the importance of external regulation and of models to demonstrate the effect of the learning environment and external arrangements on learning results. The learning-theoretical ideas of behaviourism were compatible, in particular, with the political ideologies driving social equality. In the 1960s and 1970s, educational policy reforms – and the related 'radical' interpretation of equality – raised for discussion the old debate about a person's *educability*. Following that debate, policy-makers abandoned (at least *in principle*) psychological manners of explaining individual students' differences in terms of hereditary abilities such as intelligence, talent profiles, and personality characteristics.

Educability, as a matter of preference, was not to be seen as an individual or genetic phenomenon; rather, it was to be seen as a structural, societal problem that might be solved by decision-making in educational policy and pedagogical practice (Häyrynen & Hautamäki, 1973; Antikainen, 1998, p. 94). The comprehensive school curriculum defined the chief policy line of this new thinking as follows.

> There is no reason to overestimate the effect of differences between cognitive abilities. If a subject to be taught is devised in such a way that it becomes progressively more difficult for each student in suitable steps, and if individual differences are permitted within the time used for learning, learning results do not differ noticeably between groups of different levels. Therefore, it would be justified to differentiate teaching in comprehensive schools in such a way that study times of different duration…belong to the system as an acceptable part of it. (POPS, 1970, p. 136)

From the perspective of school pedagogy, the key questions were, 'To what extent is it necessary or even possible to define a student's individual psychological learning requirements or talents?' and, 'To what educational channels should students be guided?' Perhaps the most far-reaching principle of the new pedagogy of the comprehensive school was the abandonment of genetic determinism. According to the new pedagogy, differences exist between students in their readiness for learning, but those differences cannot be assumed to be the result of genetic factors, nor can a student's school career be defined by individual personality traits or by inherent learning abilities. This thinking received empirical support from the results of work by Benjamin Bloom's research group. According to Bloom's findings, one can affect learning results decisively through teaching arrangements, for instance by varying the time used for learning, materials, and support actions; even to the point

that the 'weak students' of traditional teaching can achieve the same results as very successful students (Bloom, 1971; Block, 1971).

In other words, the actions of a teacher and the structure and characteristics of a pedagogical interaction define, essentially, a student's ability and capacity to learn. Educability ('*Bildsamkeit*') is a 'principle of a pedagogical interaction' rather than an 'individual ability or capacity' (Benner, 1996, p. 57). This meant that the pedagogical reform of Finnish schools shifted its focus from a student's inherent qualities to the work of a teacher; that is, to the nature of external direction and to principles of pedagogical interaction. The core curriculum of the comprehensive school in 1970 states this as follows.

> In the so-called 'selective' schools in particular, students' poor learning results are often interpreted as a consequence of poor learning ability. By dropping students who come below a qualifying limit, one can of course separate students who manage their studies well from a larger body of applicants. At the same time, a teacher has nonetheless chosen for participation those students who learn best through the precise procedures he or she – as teacher – employs. In a comprehensive school without an application process, the situation is different. *A student's weak results may be because the methods or attitude of a teacher are unsuitable*' (italics added). (POPS, 1970, 159)

The above model of thought transferred responsibility for learning results to teachers and to the governing bodies of schools. In the reforms to the comprehensive school, a specially resourced remedial teaching programme was developed for students and, in particular, for those with either temporary or permanent learning difficulties. *Overcoming learning difficulties* became a central pedagogical principle that has remained distinctively characteristic of school teaching arrangements. It is crucial to note that the political goals of the reform of the 1960s and 1970s and the pedagogical principles of school reform at that time were made to fit nearly seamlessly together.

THE CRISIS OF THE WELFARE STATE AND A POLICY CHANGE IN EDUCATIONAL POLITICS

The ideology and educational doctrine of the Finnish welfare state became the subject of discussion and debate in the late 1980s. A strong impetus was given to that discussion by the Finnish national economic crisis of the early 1990s, to which the dramatic political-economical upheavals in Europe – such as the fall of the Berlin wall, the breakup of the Soviet Union, and the development of European integration – are linked. As in the 1950s and 1960s, a structural change to society was involved, a change described in the 1980s and 1990s as a move from an 'industrial' or 'post-industrial' society to an 'information society'.

The change in question was followed by a wide-reaching discussion on the basic ideology of the welfare state, on Finland's 'mental state and future,' on the ideological

basis of *Bildung* policy, on the *Bildung* strategy of the information society, and on national identity (see for example Niiniluoto & Löppönen, 1994).

The teachings of neoliberalism became challengers to the equality ideology of the welfare state: free competition, a reduction in public spending, a dismantling of state monopolies, and a privatisation of public services. Neoliberal reform processes targeted the fundamental structures of society, including reforms of the monetary markets, monetary policy, the public sector, and the labor markets, as well as socio-political reform (Julkunen, 2001). These reforms must be seen, I contend, as an essential part of a turn in the direction of the welfare state, leading in the 1990s to – among other phenomena – the elimination of certain social benefits and a restriction of access to social security (Julkunen, 2001).

An Ideological Turning Point in Educational Policy: International Competitiveness

The direction of educational politics was also redefined in this new context. The turning points of the early 1990s meant that the traditional east-west position had to be widened 'towards Europe' and the global education market. The widening of those markets, following the economic recession, created new challenges for education. The key concepts of the political rhetoric of education became 'internationalisation', 'international competition', and 'globalisation'.

In this altered societal situation and ideological climate, the basic issue of *Bildung* politics changed shape. Where the welfare state project had asked, 'How can one guarantee sufficient social security, equal welfare services, and the success of a nation 'between two growth-oriented societies?'' (Kuusi, 1961), the question now became, 'How can one guarantee a small country's international competitiveness in a globalising environment?' On a rhetorical level, Finland's answer appears to have remained the same, *through a high level of education and Bildung*[3]. However, the principles specifying the content and regulation of education changed. From a perspective of international competitiveness, the challenge became "how can development into an 'information-intensive society' be implemented?"

In the early 1990s, Finland's government prepared a national information-society strategy entitled *Suomi tietoyhteiskunnaksi – kansalliset linjaukset* (*Finland for an information society: national policies*) (Valtiovarainministeriö, 1995), which defined as its main goal the elevation of Finland to foremost in international information-society development.[4] The plan led quickly to specific strategies and actions in administrative fields, including the administration of the Finnish Ministry of Education. Indeed, Finland's information-society strategies have been continuously evaluated, reformed, clarified, and concretised (see for example Lilius, 1997; SITRA, 1998; Valtioneuvosto, 2006). In recent years, specific plans and recommendations have also been created to promote the use of modern information and communications technology in teaching. Nationwide programmes have inspired a huge number of local and regional information-society projects.

At the same time, the reform processes of the ideological climate of neo-liberalism – and the manners of implementing those processes – meant redefining the educational ideology of the welfare state. Finnish education policy has continually aimed for a high level of *Bildung* and to maintain the right of all citizens to an education. This basic departure point was not disputed in principle; however, in the turning point of the 1990s, the central precepts of the 'state-led', solidarity-centric educational thinking characteristic of the welfare state were questioned or given an interpretation that differed significantly from previous stances on the topic.

The state-governed, centralised regulation of educational politics began to be dismantled systematically in the early 1990s. Through changes to legislation, municipalities were freed from the economic direction of the state and given the right to use resources freely, which led in turn to growing differences between municipal education services (Ahonen, 2003, p. 158). The role of school as the pivotal institution of society was not questioned, but the shape of its ideological atmosphere and guidance mechanisms changed radically.

Measures were sought to free education from obstacles which limited competition and the freedom of the individual. Political battle was intense, however, between supporters of the *solidarity-centric* educational politics of the welfare state and supporters of neoliberal educational thinking (Ahonen, 2003, pp. 176–194). Nonetheless, the state's role as producer of education services changed. Where the educational concept of the welfare state was rooted in a strong ideology of *Bildung* that placed central responsibility with the state, neoliberal educational thinking transferred responsibility to municipalities, and to the private sector.[5] In the 1960s and 1970s, reforms had stressed the significance of educational policies as a firm part of state-regulated 'societal politics,' even to the extent that societal development goals and the objectives of educational policies were consistent (Komiteanmietintö, 1973). The ideology of the 1990s bade farewell to this doctrine, aiming to dismantle regulations restricting the actions of a free civil society. This meant the dissolving or relaxation of statutory controls on schooling, and a move in the direction of a so-called 'results-based guidance' at every level of the education system. This change was visible in – among other places – the creation of the bases of national core curriculum in 1994. The governing principle of the core curriculum 1994 of Finnish comprehensive schools was the dismantling of external management of the *content* of teaching. The curriculum would define general goals, but schools would define the content of subject matter autonomously. Sirkka Ahonen states (2003, p. 187) – and I concur – that the reforms in question, which aligned with the neoliberal ideology of New Public Management, reflected a mistrust on the public sector and an emphasis, in education, on the self-regulation of a 'free actor' (ibid.). In 1992, the Finnish National Board of Education 'reformatted' its educational-political vision as follows.

> The Finnish educational system is mentally and structurally flexible, self-regulating, *emphasising individual skills* [italics added], decentralised in its operations, and both client-oriented and accountable. (OPH, 1992)

However, with the new millennium, the demands placed on education by neoliberal thought became decreased. A compromise was sought in legislation between the politicians of education who supported the educational principles of the welfare state and those who appropriated the teachings of neo-liberalism (Ahonen, 2012).

Pedagogical Principles: Paradigm Shift II

Voices stressing the importance of the freedom of educational markets adapted seamlessly to the new climate, deriving their reasoning from a pedagogical application of the 'new idea of learning'. A turning point in learning-theoretical research in the late 1980s – namely, the shift from behaviourism to a cognitive-constructivist way of thinking – also impacted debate on school reform. The pedagogy of comprehensive schools was criticised for behaviourism and for 'external regulation' that passivized students. Of course, discussion in Finland followed international trends in learning research (see for example Glasersfeld, 1991; Glasersfeld, 1995; Rauste-von Wright & von Wright, 1994). As early as the late 1980s, development projects were launched under the guidance of the National Board of Education, with the goal of reforming schools to conform to the 'new conception of knowledge' and the 'new idea of learning' (Voutilainen et al., 1989; Lehtinen et al., 1989; Lehtinen et al., 1991).

Pedagogical development projects related to school reforms combined 'open learning environments,' modern information technology, and the cognitive-constructivist idea of learning. *Self-regulated learning* became the key principle of the new learning concept. According to its adopted slogan, a learner is a 'self-regulating, autonomous subject' who actively constructs information from a position of his or her own goals for learning, and in an appropriate manner. One may describe this change in educational thinking as a move from a paradigm of *external* regulation to a paradigm of *internal* regulation. In the early 1990s, the central theoretical arguments of the paradigm of self-regulation came largely from the theorists of individual constructivism and, later, from various forms of socio-constructivism.

Changes in learning-theoretical thinking did not remain exclusively an internal discourse between researchers, but moved as pedagogical principles to the arena of official decision-making, and were legitimised through national guidelines on curriculum reform. In the national curriculum reform of 1994, a new 'theoretical standpoint' for comprehensive school was formulated. The 'new conception of learning and knowledge' became the basic starting point for the curriculum (OPS, 1994, pp. 9–10), emphasising a student's active role in building his or her own structure of knowledge. The national core curriculum reform of 2004 also stressed the constructivist idea of learning as a basis for the planning of teaching and other school work (OPS, 2004).

Through the 'Information Strategy for Education and Research' programmes, which were implemented simultaneously with reforms to the curriculum, attempts were made to deploy modern information and communications technology for teaching to the various levels of the school system (OPM, 1995; OPM, 1999). The

basic policy of reforms has not changed in this respect in the 21st century. The new comprehensive school curriculum since 2016 stresses a need for changes to school teaching on the basis of cognitive and socio-cultural conceptions of learning to which are linked – in particular – a more efficient use of new information technology (OPS, 2014; see also OKM, 2010).

It should be noted that, in connection with the 1990s curriculum reforms, for the first time in the history of the Finnish school, the learning-theoretical commitments of reforms were documented officially and explicitly in the foundations of the national curriculum. As mentioned, strong principles of pedagogical theory were also a basis for the 1970 comprehensive school reform. However, those principles did not have an officially legitimised status as in the constructivism of the 1990s. This reflects a strong bond between pedagogical thinking and educational policy thinking; although, on the other hand, policy-makers stressed the autonomy and independent decision-making of schools. One may summarise the pedagogical content of this connection in the 1990s as follows.

A new interpretation of the idea of equality. An ideological turning point was particularly apparent in re-interpretations of the concept of equality in Finnish education. Whereas the educational doctrine of the welfare state was founded on the idea of equality in material, social, and *Bildung*-centric welfare – as well as on an opening of talent reserves to the domain of education – attempts were made in this altered societal situation to find 'preconditions for international competitiveness' from a liberal interpretation of the concept of equality. The earlier radical idea of an equality in the results of education was replaced with a freer equality: an equality of educational opportunities emphasising the rights of individuals. The Finnish National Board of Education defined equality as 'the equal right of individuals to pursue their own efforts' (OPH, 1992, p. 13).

The return of genetic determinism? The plans of the Finnish Ministry of Education explicitly linked the pedagogical development of education to the learning abilities or aptitudes of students:

> Everyone has an equal right to receive an education according to his or her *abilities*. The equality of educational opportunities is the basis for Finnish welfare. Everyone should have an equal right to receive education according to his or her specific needs, and to develop himself or herself, regardless of wealth. The particular goal of developing an educational system is...the improvement of results and efficiency. (KESU, 2004, pp. 15, 19)

According to the above principle, a school is an arena for the implementation of individual learning processes; the stronger its capacity to direct students to educational channels according to their abilities, the more successful the school. In exercising this function, a school would realise an equality of opportunities and improve both effectiveness and efficiency.

The support and early recognition of 'peak skills'. The rhetoric of 1990s educational policy raised for discussion the allocation of investments in schooling.

The most critical declarations viewed school services that are 'common' and 'equal' to all as a waste of resources that the state and nation could not afford. Therefore, they argued, resources should be directed towards identifying and supporting potential 'top experts' (Kettunen et al., 2012, pp. 47–50). Although these demands did not lead to dramatic change, the general ideological climate has gradually become favourable to the politics of the 'top unit'. Ranking lists for educational institutions have become more common, while parents have been able to freely choose a school of their liking for their children.

The altered role of the teacher: a new grammar of pedagogy. The paradigm shift that emphasised the self-*regulation* of learning moved the focus of educational thinking from the teacher to the student and from teaching to learning. The concept of *teaching* began to disappear from pedagogical terminology, to be replaced with 'facilitating learning'. The patois and pedagogical instructions of curriculum reforms followed the discourse and emphases of constructivist theories of learning (see OPS, 1994; OPS, 2004; OPS, 2014). This phenomenon may be described as a 'new grammar' or new language of pedagogy.

The above principles describe changes and emphases in educational policies and pedagogical thinking, which have been elevated to the level of so-called 'official documentation' governing school reforms. A wholly different issue is to what extent the *practices* of schools changed in reality. Schools have always been criticised for the slow speed of their reform, and for remaining entrenched in old and traditional practices. Inertia also has its own advantages: ideological changes defined on a political level have not always served the pedagogical aims of school development.

In the changes of the 1990s, the *educational equality* remained a key principle of Finnish educational policy. However, a clear shift occurred from an equality of educational results, or a radical interpretation, to an equality of equal opportunities, or a liberalist interpretation. The equality of opportunities has traditionally been linked to the development of the structures and implementation procedures of education, in such a way that that every citizen has a right to an education, regardless of birth, wealth, and social background. According to the new interpretation, the selection of educational channels is to be directed by the individual 'abilities and capacities' of students to take part in education, and to make his or her own way in educational free markets. This interpretation received surprising support in the late 1990s from a few prestigious university researchers. Finland's education system was criticised as 'a taboo of the welfare state' (Ahmavaara, 1998) that had led to a collapse in the country's general level of knowledge, particularly in mathematics and the natural sciences. Critics argued that dismantling this taboo demanded the deployment of skills tests and psychological intelligence testing, in order that students might be directed to educational channels according to their 'skill profiles'. Debate about an alleged drop in the national levels of knowledge was quietened with the appearance of the first PISA results at the turn of the 21st century. However, the other side of this reality is that, on a macro level, near-dramatic structural changes

were implemented in the late 1990s, leading in a few years to the cessation of several hundred comprehensive schools, not only in areas of the rural periphery, but in town centres. The same pace has continued in the 2000s and 2010s (see Ahonen, 2012, p. 165).

ECONOMIC RECESSION AND DEVELOPMENT IN RECENT YEARS

The banking crisis that began in 2008 in the United States – and the subsequent global economic crisis – created new conditions for educational policies. In Finland, political discussion has been governed of late by debate on state debt, the economic sustainability deficit, unemployment, and a need for structural changes to society as a consequence of those phenomena. The situation resembles the economic recession of the 1990s. Finland's economy suffered an unprecedentedly swift collapse in 2009. The gross domestic product (GDP) dropped as much as 8.2 percent, falling more than at any time after Finland's independence (1917). The collapse of the GDP led to a reduction in exports and, in particular, to a collapse in exports from the Finnish technology industry (Pyöriä, 2011). Economists differed in their appraisals of the depth and duration of the recession. Following the collapse of 2009, it appeared that the recession would be temporary, but after a short improvement in 2010, the recession became prolonged and has continued longer in Finland than in other OECD countries.

The above situation has not led immediately to a significant reform of educational policy. During the first decades of the 21st century, the official development principles of Finland's education system have largely been revisions of earlier principles, with the distinction that theses arising from the ideological world of the market orientation of neoliberalism have been diluted, cheapened, or not made explicitly public in official educational policy lines. Educational policy programmes published at a high administrative level emphasize the following inalienable principles: an equality of the educational opportunities, raising the education level of the populace, and the prevention of social exclusion (Hallitusohjelma, 2007; Hallitusohjelma, 2011; Hallitusohjelma, 2015; OPS, 2014).

It should also be noted that official interpretations of the idea of equality have abandoned references to the 'inherent ability differences' of individuals. Prime Minister Katainen's government policy programme of 2011 stresses the importance of education-based 'know-how' and creativity in securing competitiveness, but also the intrinsic value of *Bildung*.

> The ability of Finnish work to compete on the basis of skill and creativity requires a working education system. The best comprehensive school in the world will be strengthened as a guarantor of the equality of opportunities. *Bildung is its own goal* (italics added). (Hallitusohjelma, 2011)

New to the educational stage or, more precisely, presenting a return to the past, is the recent elevation of *Bildung* to the position of 'a goal in itself,' an objective

whose value one cannot and need not measure by criteria independent of itself. Sirkka Ahonen (2015) states, however – and I concur – that steps taken backward in history are rare. The Finnish school rhetoric of 2010 no longer relies on a 1960s belief in societal equality but on a free 'dynamic ethos of communality.' That ethos is reinforced by the economic crises, against which a community can prepare itself by maintaining its cohesion (ibid.) Cohesion is served by *Bildung* goals with an intrinsic value relating to the entire population. Yet, on the other hand, tension is created by the continual emphasis – derived from an instrumental rationality – on efficiency and on international competitiveness. The emphasis on these two aspects demands that skills and schooling be seen in terms of requirements for economic success and competitiveness. The resulting tension is visible in policy lines through an 'on one hand…on the other hand' arrangement that attempts to sustain clearly *opposite* or *conflicting* goals, including communality and individuality, solidarity and competition, periphery and the centre, public and private, and social equality and the rights of the individual. The current centre of political focus appears to be the latter of each pairing.

The 'new pedagogics' or Mixed Principles: Paradigm Shift III

Although dramatic changes have not occurred in the ideological climate of educational policy in recent years, strong demands for reform have been directed at the *pedagogical* development of educational institutions. The government policy accord of 2015 states unambiguously that the pedagogy of comprehensive school will be reformed (Hallitusohjelma, 2015, p. 17).

> The reform comprises three parts: a new pedagogy, new learning environments, and a digitalisation of teaching. The goal is to improve learning results, to respond to future skill needs, to reform pedagogy through experimentation, and to make learning inspirational throughout a person's life. The goal is that Finland will develop into a laboratory of internationally interesting new pedagogy and *digital learning* (italics added). (Toimintasuunnitelma, 2015, p. 26)

The kernel of the new pedagogy is digitalisation, or, more precisely, a modernisation of school work-practices, learning environments, and teaching, through digital media applications. As compared to earlier policies, digitalisation offers nothing that is substantially new; rather, it is a continuation and updating of the previous strategies of information technology and applications for teaching. The background for the present strategic emphasis is composed of changes that have occurred in the operational environment of schools, such as the digitalisation of culture, and the effects of economic recession. The background for the new movement has also been shaped in particular by the recent results of national and international assessment studies, including PISA, of learning achievements. Those studies propose that the learning results of Finnish young students are falling (see for example OECD, 2014;

OKM, 2014, p. 10). Reforms have been accelerated by the observation that Finland has not remained at the top of the development of educational applications using modern technology (see for example OECD, 2015). In other words, the modernisation and digitalisation of learning environments is supposed to propel student results to a new high. However, in this context, it is striking that the digitalisation policy of the new pedagogy does not acknowledge the results of a recent study by OECD, which found that a widespread use of IT applications and numerous investments in teaching applications that make use of modern technology have not led to improved student results; rather, the opposite is true.

What, then, are the substantive policies of the new pedagogy? Of course, digitalisation does not provide a complete picture of that pedagogy. In his book '*Finnish Lessons: What can the world learn from educational change in Finland?*' (2011) Sahlberg describes the pressure towards national reform created by trends in international education policy. Sahlberg calls this phenomenon the 'global school reform movement' and contends that its principles have become widely accepted, although more often as an unofficial ideological agenda than a formal or officially organised programme of pedagogy or educational policy: 'It has become accepted as 'a new educational orthodoxy' in many recent education reforms around the world' (Sahlberg, 2011, p. 99).

Principles and models of action appropriated from the world of business act as a frame of reference for the ideology of this 'new doctrine', the background organisations for which are supranational institutions, development offices, and businesses. A pedagogical motor for the new doctrine is a new paradigm of learning that has risen to a mainstream position in recent decades, through which the focus has moved from teaching to learning, as noted above. This, in turn, has led to (1) the specification and deployment of common standards of learning, (2) test-based quality control, and (3) growing competition between schools, feeding the politics of a free choice of school.

Axel Honneth (2012) describes this phenomena by calling George W Bush's 2001 'No Child Left Behind' (NCLB) act, and president Barack Obama's 'Race to the Top' programme, 'alarming US examples' of global reform-movement campaigns that promote the privatisation of public schools, the standardisation of curricula, and the introduction of standardised testing as a measure of the efficiency of teachers and schools, and as a basis for funding (Hanhela, 2015). According to Sahlberg's assessment, Finland has not yet appropriated the principles of the global reform movement, although pedagogical ideas developed elsewhere – often in the United States – have been applied to the development of the Finnish system (Sahlberg, 2015 pp. 195–219).

In the light of recent reform plans, Sahlberg's appraisal seems one-sided or over-optimistic. Indeed, the pedagogical effects of the reform movement have not reached comprehensive schools in such a way as to lead to significant changes in school practices. For instance, no standardised learning tests or wide-ranged tendering of schools has been implemented. Signs indicate, however, that the supranatural

educational policies and directions Sahlberg describes have defined the general development climate of pedagogy, and therefore also direct practical reform work. In the plans for pedagogical reforms to be implemented at different levels of schooling, regulations are created on a central stage – for instance – by the OECD and the EU.

The priorities currently guiding the pedagogical development work of educational institutions include (1) competence as a basis for the preparation of curricula; (2) what are described as 'twenty-first century skills' as a departure point for the planning of teaching; (3) reinforcement of ICT in teaching; (4) phenomenon-based-learning in defining the contents of curricula, instead of – or alongside – subject-centricity or science-centricity; and (5) quality assurance for teaching through systems for auditions and evaluations. Although these points do not belong directly to the agenda of the 'global reform movement' as described by Sahlberg, their pedagogical content is seamlessly applicable to the educational policy programme of that movement. On a general level, the issue is that pressure for uniformity is now driving national systems of education into a single formal frame, compelling those systems to uphold uniform pedagogical development principles that do not consider a country's specific cultural or national requirements.

One may even speak – and perhaps a little ironically – of a paradigm shift with two distinct characteristics. These characteristics might be described as follows.

Firstly, the pedagogical guidelines for these reforms contain ideas combined from different source types, ideas that may contradict each other, at least on a rhetorical level. The dividing line of learning-theoretical discussion is no longer between external and internal regulation. Almost any pedagogical idea is now viewed as an acceptable motor for reform, as long as it is believed to have reform value, or in some way boosts the effectiveness of learning. Therefore, constructivist approaches that one might view as having been discarded by traditional or earlier behaviourist pedagogies are stressed as principles for directing reform, and as suitable points of departure for the development of modern learning environments (see for example OKM, 2010).

At the same time, attempts are being made to set 'skills' or the 'results' of learning as educational objectives, just as behaviourists did during the 1960s and 1970s by describing the aims of learning in terms of 'end-point behaviour'. The goal descriptions of the paradigm of new learning also employ a 'goal hierarchy' as taxonomised by Benjamin Bloom, a hierarchy according to which curriculum work is to be directed. In other words, in plans for procedures for the implementation of teaching situations, and in designs for the structure of the learning process, ideas that stress a constructivist self-regulation of learning are being mixed with principles that adhere to a socio-technological instrumental rationality.

Secondly, subject matter or substance does not direct the reforms. One might call this phenomenon a 'disappearance of substance'. The reform stipulations guide school pedagogical development work away from the content of teaching to formal, instrumental criteria such as 'key competences', 'phenomena', and 'formal processes', criteria whose link to the substance of teaching and to scientific content

has been broken. In other words, the focus of the pedagogical interest of development work in schools has retreated from content. This has raised the following relevant question, particularly among professionals responsible for everyday teaching work in Finnish schools: 'Is the weakening of Finland's PISA success and the downward spiral of Finnish educational results being treated with the wrong medicine?'

From the perspective of the advancement of work in schools, it is crucial to note that, unlike classical reform pedagogies, the above reform tendencies do not appear to derive primarily from pedagogical motives or from internal development demands based on the relative autonomy of a school. Rather, those tendencies derive more closely from external politico-ideological agendas. At issue is a classical question of school theory; namely, 'How does a school as a pedagogical institution reposition itself and its objectives under the pressure of political societal trends and demands that appear increasingly global in scale, and pervasive? From the viewpoint of the development goals of the Finnish educational system, the situation is particularly fascinating because the Finnish school – at least, the Finnish public comprehensive school – has largely succeeded in creating its own vision of Bildung, and its own manners of achieving that vision.

Sahlberg (2015) describes the fundamental ideology of the Finnish school as opposite to the above wave of reform in many crucial points. Although his assessment cannot be generalised as applying to every level of the Finnish education system, it aptly describes a general tension between supranational development trends and the development principles of the Finnish national school systems. At the same time, Sahlberg's appraisal shows that Finland's school system – which was created in the 1960s and 1970s upon a strong vision of Bildung – can be egalitarian and successful without appropriating the goals and demands of supranational trends. Recent reform trends raise concerns that the vision of Bildung so pivotal to the development of the Finnish school will now disappear. Current political and pedagogical discussion appeals rhetorically to the concept of Bildung, to Bildung ideals of the welfare state, to equal opportunities in education, to education's duty as a guarantor of the material and mental welfare of citizens, and even to the intrinsic value of Bildung. However, the principles currently directing reform work are a relatively unstructured, contradictory mixture of trends introduced by the global wave of reform; assumptions about future needs for skills, and pedagogical ideas compiled from different theoretical sources. One may expect that upon such as path, Finland's 'star' as a wonderland of education will grow dim.

SUMMARY

The roots of Finnish education politics extend to the 1800s, to Hegelian-Snellmanian *Bildung* thinking that stresses the significance of *Bildung* as necessary to a 'small nation.' In the 1800s, J. V. Snellman, who received the title of 'Finland's national philosopher,' shaped this thinking into a slogan, 'Finland can do nothing through violence; the power of *Bildung* is its only salvation'. This slogan and variations of

it appear as the leading idea of educational development at many significant turning points and school reforms in Finland from the 1800s to the 2000s – although politico-economical and structural changes to Finnish society have also spurred educational policy thinking to new channels. Snellman declares that as *Bildung* becomes stronger, the more of a nation's populace participates in it. As a consequence, demands for societal equality, democracy, and justice were already built into the idea of *Bildung*, and were sharpened and rehabilitated after the Second World War, in the building projects of Finland's welfare state and in the school reforms of the 1960s and 1970s. Educational doctrine in those decades *saw Bildung* as a universal national right, a part of the social security of the welfare state to which every demographic group was entitled, regardless of birth, gender, location, social position, and economic situation. This viewpoint invoked a radical interpretation of educational equality and, in particular, of an equality of learning results, involving a pedagogical paradigm shift from 'the genetic determinability' of education to the social structures of education and to the adjustable conditions of pedagogical interactions.

In the 1990s, a significant ideological change occurred. A powerful impetus to this change was given by the economic recession of the 1990s; by the crises in Finland's state economy; and by dramatic politico-economic turning points in Europe, particularly the disintegration of the Soviet Union, the toppling of the Berlin wall, and the developing integration of Europe. Neo-liberalism and the lessons of market economics became challengers to the ideology of equality and the educational doctrine of the Finnish welfare state, bringing free competition, a reduction in public spending, a dismantling of state monopolies, and the privatisation of service production. This neoliberal turn produced reform processes directed at the fundamental structures of society, and did not leave education unchanged. The core question of educational politics became, 'How can one ensure the competitiveness of a small country in a globalising working environment?' On a rhetorical level, the Finnish answer to this question has remained the same: *through a high level of Bildung and education*.

The content and pedagogical principles involved have, however, changed. The goal of equality remained a crucial educational principle, but a clear change occurred in the interpretation of that goal, from an equality of educational results, or a radical interpretation, to an equality of opportunities among equals, or a liberal interpretation. The neoliberal turn in educational policy followed a pedagogical paradigm shift, a constructivist move from external regulation to *self-regulation*. The political agenda of neo-liberalism and the applications of constructivist learning theories appeared as siblings.

Nonetheless, debate on the pedagogical and on educational policy has, in recent years, drawn clear attention to the strains and contradictions of the above reform principles. On the one hand, *Bildung* is seen as of intrinsic value, a goal in itself. On the other, tensions have been created by increased competition and efficiency based on an *instrumental* rationality. These tensions are visible in the principles of official educational policy and in 'one or the other' thinking that attempts to enforce clearly

opposite or conflicting goals, such as communality and individuality, solidarity and competition, public and private, and social equality and the rights of the individual.

In accordance with classical *Bildung* theories, one may view such opposing or conflicting goals as antinomies belonging to the fundamental dialectics of *Bildung*. As modern educational policy, however, such goals may more closely reflect the confusion spawned by a wave of global reform than a pedagogically justifiable perspective that combines theoretical ideas from different sources into a unified vision of *Bildung* for the purposes of constructive change. The Finnish school, having achieved international reputation because of its PISA results, has now been brought to a watershed. How can Finland reconcile agendas of supranational educational policy with educational doctrine based on a national vision of *Bildung* that has been seen as excellent and successful in the arena of international competition? Many analysts argue that the ideological principles and consequences of global school reform trends are questionable (see for example Honneth, 2012; Sahlberg, 2011; Schöning in this book). Such conclusions notwithstanding, international pressure is now driving national educational systems into the same mould, regardless of cultural and national features. Can the result be anything other than accelerating competition for places on ranking lists, and a subsequent disappearance of rationality and sense?

NOTES

[1] In the context of the 1800s, the playing field for implementing a national Bildung programme was actually relatively narrow. Because the intelligentsia and civil service were for the most part Swedish-speaking, attempts to strengthen the station of the Finnish language and to raise the Bildung of Finland's citizens were born of a confrontation between Finland-minded Fennomans and Svecomans. Conversely, Russia exerted close control at the time of the reforms to ensure that no break would occur with its policies and regulatory power as Finland's governing nation.

[2] Sirkka Ahonen (2003, pp. 26–28) has drawn attention to Snellman's decision, during the educational-political scuffle of the 1800s to support a parallel system – that would remain unaltered until the 1960s – of elementary schools for all age groups and of grammar schools aiming for a higher level of lessons (ibid.) This was, of course, a significant educational policy issue, but Snellman's viewpoint does not entitle one to conclude that he promoted, in his political vision of Bildung, a cultural elitism divisive to the nation, as Ahonen suggests. On the contrary, Snellman's criticism against the elitism of the intelligentsia was sharp and polemic. 'Your parties are dancing on graves,' wrote Snellman in a letter to Fredrik Cygnaeus.

[3] A well-known slogan of political rhetoric, 'Education, education, education' inspired the international speeches of several Finnish Bildung politicians.

[4] Karvonen (2004) draws attention to the fact that, of the twenty members of a workgroup who prepared the EU publication in 1994 of an information-society report entitled 'Europe and the Global Information Society' (Bangemann, 1994), sixteen were representatives of the largest businesses in Europe and expressed a view of the information society that accorded predominantly with the interests of large industry. The work group urged the European Union to place its hope in the mechanisms of the market as an impetus 'that would bring us into the 'information age.'' According to this presentation, member states must demolish telecommunication monopolies and remove non-commercial political irritants and budgeted funding from the field. Seen against this background, the strategies of an information society as principles of educational politics include relatively conflicting and controversial policy lines.

[5] One might also describe the changed role of the state as a move from a position of producer of education services to a regulator and evaluator of service offerings (Simola, 2015, p. 269). Just as standard controls were dismantled in the 1990s, a comparatively massive machine of evaluation was set up for the development needs and quality control of Finnish education.

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WOLFGANG SCHÖNIG

12. THE TRANSFORMATION OF SCHOOL IN A CHANGING SOCIETY – A GERMAN EXAMPLE

The following text gives an impression, from an educational science perspective, of the objections against current school reforms in the Federal German Republic. Using several examples, the social challenges that schools have to meet as well as recent structural changes to the school system are explained (1). Two state management strategies in the context of the new forms of output orientation, the establishment of skills-based national education standards (2) and ensuring the accountability of schools by means of state top-down external evaluation (3) are highlighted and analysed on the basis of educational theories. A summary points out the weaknesses of the school reforms, providing recommendations for developing an education that takes the true vocation of schooling seriously (4).

On the Impetus for Change within the German Education System

Whoever is involved in the education system of the German Federal Republic, and in the school system in particular, is confronted by a confused and extremely tense situation. Social change has led to challenges posed by the current school reforms. The growing need for childcare, for instance, has triggered an ongoing expansion of full-day schools (Ganztagsschulen), for which the federal government has established an expensive programme. By 2009 the federal government had supported the conversion of more than 8,000 institutions into full-day schools with the aid of its "Investitionsprogramm Zukunft Bildung und Betreuung" (IZBB), or investment programme into the future of education and childcare, investing 4 billion euros. Moreover educational methods are being adapted to meet the criteria of the United Nations' Convention on the Rights of Persons with Disabilities of 2006. The UN convention was ratified by the German government in 2009 and is enshrined in education law in every federal state. In order to fulfil the requirement that the disabled should be able to participate fully in a fair and free society, it is compulsory for schools providing general education to accept and foster disabled students. Educating disabled and non-disabled young people within the same school automatically raises the question of the future status of special schools in the Federal Republic, since these were developed and perfected after the Second World War to cater for people with a wide range of disabilities. Another challenging German reform consists in reducing the number of school years at Gymnasium (high school)

P. Siljander et al. (Eds.), Schools in Transition, 213–227.

from nine to eight years. The reform aimed to avoid time being wasted in the upper classes, allowing Gymnasium graduates to enter the job market or go to university earlier – the implementation of potential human capital. In actual fact it has resulted in a considerable burden on our students and a heated debate on educational policy. Since individual states in the FGR have considerable decision-making powers and independence in education matters, several of them are now using their right to either return to the previous system or make the nine-year as well as the eight-year Gymnasium optionally available (e.g. in Baden-Württemberg). In the weekly newspaper DIE ZEIT Martin Spiewak (2014) calls it an "admission of the failure of educational policy" and scathingly comments that "the controversy surrounding the number of school years will go down in German school history as one of the most stupid debates ever" (p. 33). Obviously, this is just a handful of the issues at stake, but they give an impression of the huge challenges faced by the German school system.

Yet no other debate has had such serious consequences for the school system as the discussion on school structure, which has gradually developed since the year 2000, when the fact that German students were getting mediocre scores in the PISA test was becoming very clear along with the finding that their results were closely linked to their social background. On publishing PISA 2009 the OECD questioned the structure of the school system in Germany for the first time:

> Systems that reveal a high performance rate and a balanced distribution of educational returns tend to be inclusive; in other words, teaching staff and schools must integrate students from a variety of backgrounds by means of routes that are adapted to suit individual needs. By contrast school systems that presume that students are predestined for different careers, and accordingly set different expectations and split them up into different schools, classes and levels, often show less equitably balanced results, without the overall performance being any better. (OECD, 2010, p. 18)

This assessment was related to the three-tier general education system available in Germany, which led to numerous sterile debates on the introduction of the integrated comprehensive school during the 70s. Most elementary schools provide four years of teaching (Berlin and Brandenburg provide six), followed by the three types of secondary schools, the Hauptschule, Realschule and Gymnasium. The OECD's call for a fully integrated form of education revived the debate on school structures. A significant example is the educationalist Klaus Hurrelmann, who had suggested a two-tier system in 1988 and put forward his suggestion again towards the end of 2013. In addition to the 12-year Gymnasium there was to be only one other form of secondary school: a 13-year *inclusive secondary school*. The latter was to offer all children, irrespective of their social background, sufficient educational opportunities. Both school types were to lead to the Abitur, with the difference that the 13-year secondary school would be more orientated towards vocational training (Hurrelmann, 2013; cf. Hurrelmann, 1988). A comparison of all 16 German states

reveals that Berlin, Brandenburg, Bremen, the Saarland, Schleswig-Holstein and Hamburg meet Hurrelmann's criteria either entirely or quite well. Furthermore, the Hauptschule (lower secondary modern school) is found to exist as a *separate type of school* in Bavaria, Baden-Württemberg, Hesse and Lower Saxony only. Its loss in importance due to the lack of parental demand led this type of school to be diagnosed as slowly becoming extinct more than two decades ago (cf. Rösner, 2007). Today the Hauptschule only accommodates 15.3% of all 8th-graders (KMK, 2014). This is why it has been incorporated into the Realschule (middle and secondary school) in most German states, allowing a new, integrated type of school to be created. The school has different names in different states: in Rhineland-Palatinate it is called Realschule plus, in Thuringia Regelschule (mainstream school), in Saxony Mittelschule, in North Rhine-Westphalia Sekundarschule, etc. Wherever the Hauptschule still exists in addition to the integrated "Haupt-Realschule", as is the case in North Rhine-Westphalia, its abolition has already been planned. Thus, despite the structural variety caused by the cultural autonomy of the individual states in Germany, two powerful trends can be observed: on the one hand the German school system is experiencing a transition from distinct and strictly separated school forms into an *inclusive system*, and on the other hand the highly traditional *Hauptschule is gradually disappearing* from the scene. Only Bavaria, with its conservative educational policy, is determined to preserve the Hauptschule (renamed "Mittelschule" since, 2009).

In view of these conflicting developments, the question is bound to arise as to what the state intends to do in order to produce a uniform, and preferably top-quality, system of schools and education, as well as ensure that its product "education" remains *competitive* on the international market. The solution – just like other states – is sought in *output management,* or rather, *management by objectives.* The actual performance achieved by the system is assessed on the basis of attested student skills. With this aim the permanent conference of the ministers of culture of the Länder (KMK) began to establish a series of *national* (!), i.e. *federal education standards* at pivotal points within the system from elementary school to Gymnasium. Again, these standards are *skill-based*.[1] Another important management strategy involves making it compulsory for schools to prove their accountability by means of *internal and external evaluations*. The tools implemented are part of a completely new top-down strategy, inevitably resulting in an increasingly refined and pervasive form of supervision and accountability. In the following a number of key control practices will be analysed, and empirical evidence will be provided.

National Education Standards and Test-Based Skills Monitoring – The Road to Better Schools?

What is fundamental about the German-wide, uniform standards is a concept of competence which sets demanding learn-theoretical criteria but which at the same time is not sufficiently theoretically supported (Herzog, 2013). The KMK applies the definition of competences proposed by Franz E. Weinert. Weinert defines competences

as "… the individual ability to learn cognitive skills and acquire knowledge in order to solve certain problems, as well as implement related motivational, volitional and social competences to use the solutions successfully and responsibly in a variety of situations" (Weinert, 2001, p. 27).

With the aid of standard *comparative tests* (VERA 3 and VERA 8) students are assessed to determine what skills they have acquired in core contents in a number of subjects by a certain year/grade. The aim is to establish how much proficiency each individual has gathered in the course of their learning history (cumulativity). It is important to distinguish between various types of standards. The academic literature mentions three different standards (cf. Herzog, 2013). *Content standards* or *curriculum standards* describe exactly *what* is to be studied, i.e. what knowledge and skills teachers are to teach their students. For *content standards* it is vital to have a curriculum that clearly prescribes the subject matter and materials to be used. This does not include the *opportunity-to-learn-standards*, which determine the materials and staff resources (number of teaching staff, teaching and learning aids, classroom equipment, media and schedules), providing students with an environment conducive to study. Finally target-related *performance standards* should be mentioned. These indicate *how much* of a certain subject content is to be learnt by a certain point in time. Obviously our national education standards are *performance standards*. To a large extent they leave it up to the teacher to decide the contents and methods to achieve the required standards. This reform has had far-reaching consequences, because the content-based German curricula have had to be rewritten in order to make them skills-based, a time-consuming process which will take a great many years. In Bavaria, for example, the curriculum reform project for Gymnasium will probably not be completed until after 2020. Rudolf Künzli has summarised the main functions of the curriculum as follows: The curriculum serves to establish a framework of the cultural traditions and achievements to be transferred and taught. He calls it "society's content performance mandate" (Künzli, 2011, p. 21). In other words, it is a political instrument within the democratic system. Due to the ongoing restructuring of the curricula into *skills-based core curricula,* the political instrument is increasingly turning into an instrument of control and therefore into "a domain for educationalist experts on academic research and school administration" (ibid.). Quite frankly, this paves the way for the de-politicisation of the curriculum, breaking with tradition and *de-professionalising* teachers who were previously much more independent.

Furthermore there are differences in the terminology used to define national standards, which are of great significance for teaching practice. For one thing there are the terms *minimum standard, norm standard* and *maximum standard*. *Minimum standards* indicate the targets that students must reach, or rather, must *not* fail to reach. In principle the standards must be formulated in such a way as to allow every single student to reach the minimum level. However, the KMK has refused to support this, instead plumping for *norm standards*, which indicate the average performance to be achieved by students in a subject by a certain year/grade. Consequently, they are

selective since they distinguish between students who perform better than average and those who are below average. Thus *norms standards* serve a rational selection purpose. Finally, *maximum standards* refer to a top performance.

If one takes a look at the Finnish school system, one can remark a major striking difference between Finnish and German standards, for Finland applies *opportunity-to-learn-standards*, which provide guidelines for teaching methods. They are less restrictive because they merely consist of national targets, core contents, and final exam assessment criteria. They extend beyond the subject matter taught by addressing pedagogical objectives. Due to its emphasis on *education,* the standard term "Bildungsstandard" used in Germany is in fact taboo in Finnish educationalist debates (Frühwacht, 2012). By contrast in the FRG the term has become a sort of mantra ever since national education standards were introduced, and the term "Kompetenz" is becoming more and more fashionable. As a technical instrument used to monitor learning processes VERA tests also act as a powerful tool to impose political controls and criteria (Herzog, 2013). They aim to:

- give instructors and schools clear, reliable and stable guidelines on how to reach the goals based on reference standards and criteria;
- provide objective and comparable information on the progress made or skills of students;
- allow a comparison of performance and skills between school classes, schools and German Länder;
- give a highly accurate diagnosis so that suitable training programmes and tools can be developed for learners;
- provide opportunities for dialogue with students and their parents;
- help improve the quality of lessons and thus advance the school as a whole.

The issue has been the subject of plenty of harsh criticism. Ludwig Pongratz stresses that from a neo-structuralist perspective, skills act as a top-down vehicle to "generate" a flexible human being (Sennett, 2000). Educational standards are intended to enable everyone to "gain the willingness and ability to (re-)organise themselves under difficult and ever-changing conditions" (Pongratz, 2010, p. 104). School provides adolescents with *lifelong adaptability* in order to cope with precarious situations in life as well as meet the fluctuating demands of the labour market – so as to avoid unemployment and social exclusion. Students are supposed to keep learning throughout their lives: According to Roland Reichenbach, "In expertise-enhancement societies ever-ripening fruits are sought" (Reichenbach, 2010, p. 5). Thus expertise and skills have an affirmative function, and can be drawn on universally at any time. They have no inherent worth but merely are a utility factor.

Moreover they lack substance, in other words, content. Even though we use the term "skills" automatically every day, its meaning remains "unclear and vague" (Pongratz, 2010, p. 109). Its usage in descriptions and typologies soon makes clear that the term is a "catch-all for just about everything from sensomotoric abilities and

technological understanding, self-management and dealing with feelings, to team spirit and personal experience. It can mean just about anything, provided it ensures that people adapt to the current demands of society and the market" (idem.). What is more, Karlheinz A. Geißler und Frank Michael Orthey conclude that "competence" stands for the rather vague notion of "das verwertbare Ungefähre", i.e. "tangible approximate values" (Geißler & Orthey, 2002).

What in fact do educational standards have to do with *education*? As Alois Regenbrecht, following Heike Schmoll, claims, the term "standards" alone constitutes a "linguistic monstrosity à la PISA", a misnomer that is tantamount to fraud (Regenbrecht, 2005). It belongs to the neoliberal rhetoric that is used to disguise the real objectives of reform. The commercial interests have to be couched in neoliberal, idealistic terms to conceal them from general awareness. Thus, the population at large does not realise that educational standards do not actually refer to education at all, but to assessable pupil performance (Regenbrecht, 2005).

Anyone who makes such claims is bound to be accused of resorting to polemics. Therefore it is essential to call for empirical research on educational standards. How does the standardisation of the school system work in practice? Let me mention several recent studies. Uwe Maier carried out a fairly complex piece of research in Baden-Württemberg and Thüringen from 2004 to 2007, which examines the views of teachers at elementary schools (Grundschulen), middle schools (Haupt-, Real-, and Regelschulen (Thüringen)), and high schools (Gymnasien) on the introduction of educational standards and comparative tests (Maier, 2009). In summary, the following can be said: Teachers are failing to understand and get to grips with the aims of the reforms; it is "rare" for teachers to acknowledge the potential of tests to lead to "autonomous and professional" activity (idem., pp. 289, 342). "Only in extremely rare cases" (idem., p. 291) do test results indicate an improvement in teaching methods, according to instructors. This is also reflected in a study by Hans A. Pant et al. carried out in 2006. This research team claims that teaching staff are unable to gauge the practical implications of educational standards, and that they lack teaching models in order to put the ideas into practice (Pant et al., 2008, p. 837ff.). Unsatisfactory test results, according to Maier, lead to an increase in practical exercises and therefore pupil pressure. Teachers are unlikely to investigate and diagnose the causes, "very few inform parents and students on social comparative values" (idem., p. 347). This means that, on the whole, the test results hardly serve to improve individual performance or the quality of lessons. Thus it is hardly surprising, Maier believes, that test results cannot result in improved policy development at schools. Test results are not linked to quality assurance through self-assessment, as they are intended to. Instead, school administration deal with the results in a purely technical manner. Furthermore, the study found that test results were being less frequently discussed by school committees (idem., p. 346). All in all, Maier's research gives the impression that teaching staffs have come to some form of arrangement with standards and skills tests – making the best of a bad job, so to speak – whilst following their old habits and routines in practice.

The (non-representative) empirical study published in 2012 by Annette Frühwacht emphasises a totally different aspect by comparing the perception of education standards by Finnish and Bavarian elementary school teachers. Bavarian teachers were found to show more positive attitudes towards accepting and using the standards than their colleagues in other school types. Frühwacht attributes this to the positive conditions at elementary schools, since their structure guarantees effective cooperation. However, she points out considerable differences between the acceptance and implementation of standards, on the one hand, and the tests subject to VERA 3, on the other. Standards are not yet actually being taken into account when planning lessons, they still are not "consciously being used at a teaching level by members of staff" (Frühwacht, 2012, p. 205). Consequently, there has been no impact on staff cooperation and school development. This does not apply to tests. Although VERA is termed an "additional element of standard-based reform", (idem.), the test is of great importance for everyday operations. Teachers frequently practise VERA tasks for some time before the test (teaching to the test), but come to the conclusion that the tasks are "foreign" to Bavarian teaching methods. There is obviously a discrepancy between local and external criteria. Few instructors use the test results to offer "in-depth advice to parents" (idem., p. 206). What is more, Frühwacht states "VERA results are only sporadically used to confirm the teacher's own diagnosis when consulting parents" (idem.). They are hardly ever used to set up a pupil improvement programme. Although poor results lead to feelings of frustration and shame, they are not systematically used to improve lessons. Average and good test results make teachers feel confident "and help stabilize teaching" (idem.). Instead of being used as a tool to diagnose what could be improved in class teaching, test results serve to *legitimize selection decisions*. Overall, therefore Frühwacht's findings agree with Maier's and need to be taken seriously: apparently, a great number of targets are not being fulfilled by means of current educational standards and tests. In particular, this applies to improvements in teaching, school development and to establishing a "spot-on" diagnosis to raise pupil performance. There is a grave risk of the reforms promoting selection as well as the de-professionalisation of teachers (Herzog, 2013). Naturally, this assumption will have to be proven by further, more representative studies.

School Assessment: Measured Education

Setting and meeting targets calls for assessment. This is the order of the day in the business world, and meanwhile has become part and parcel of the school system – including such economic concepts as TQM and EFQM. As far as I am aware, all the German Länder meanwhile feature a state mandate for cyclical assessment at each individual school; in other words, this has also been anchored in education law. In most states an internal evaluation, or self-assessment by the school, is followed by an external evaluation by state-employed teams of experts. Despite procedural and organisational differences between individual states, external evaluation is based on a certain *basic pattern*: After framework data on the schools concerned have been

collected and the assessment team has made an introductory visit, several days are spent at each school to take stock. Buildings are scrutinised, interviews are held, about 20 lessons are observed, and standard questionnaires are filled in by students and parents. The results are gathered into a report, which is presented to the school before being sent to the school inspectorate. Members of the board finally discuss the most striking points of the report with the school administration, to work out suggestions for improvement and set goals. It is up to the school administration to remedy any shortcomings by the next assessment in several years' time (see details: Schönig, 2013).

Unfortunately the new "drug" assessment includes a list of instructions for the patient, supplied by educationalists and sociologists which is not read by education policymakers. The academics and scientists doubt whether pedagogy and top-down external assessment are compatible (Schönig, Baltruschat & Klenk, 2010; Schönig, 2010). This scepticism is fuelled by reports from countries with a long-standing experience in school assessment (Weiß, 2009; Böttcher & Kotthoff, 2007). Let me point out the most important factors.

Excessive Expectations of Performance Enhancement at Schools

Weinert has warned us that it is unrealistic to expect our schools to raise their performance quickly. For one thing, school performance and results constitute the completion of school trajectories. According to Weinert (2001)

> …they are the cumulative result of long-term learning processes; the performance level is more likely to depend on the knowledge acquired over time than on current classroom teaching. Instruction not only consists of individual lessons which can be changed at short notice and perhaps better organised, but also depends on the classroom atmosphere, stable teaching, educational and interactive styles, and finally on the pedagogical skills of the teacher. The teaching competence of each instructor involves years of gaining expertise. (pp. 361, 362)

Yet stable teaching routines and competence "can only be expected to lead to substantial change in teaching, learning and performance, if the whole package of didactic and educational measures are implemented simultaneously" (idem., p. 362). In other words, relevant steps have to be taken within the organisation and funding of schools and in the training of teachers for significant assessments to bear fruit on a large scale.

Evaluation with Class

Every type of top-down, state evaluation is based on a *prior understanding* of what school is. The problem is that this understanding is not made transparent but is veiled in the jargon of reform semantics and modern governance (Koch, 2010; Schönig,

2010). In public debate education is directly related to competition and location, which reveals that evaluation does not serve to improve pedagogical conditions at our schools at all, but merely to increase "human capital". The institutional norms that schools maintain to prepare its students have to be adapted to external evaluation criteria. According to Lutz Koch (2010), they are equivalent to preliminary decisions, having a "formative impact on schools": "The assessment not only evaluates the school, but shapes it […]" (p. 45). At this stage there is obviously an urgent need for a pedagogical debate on the theory of school in light of this rising control mania.

It follows that the educational aspiration of schools to place all the natural powers of mankind into a "well-proportioned relationship" (von Humboldt) is being undermined. The integral concept of mankind is abandoned as soon as a school is calibrated to the objective determination of performance and skills. Yet education cannot be measured! The more school assessment relies on measuring quantifiable dimensions, the more "soft" educational criteria are likely to be excluded. Generally the various types of evaluation processes are clearly apparent. Each assessment involves one meaningful sample of the complex life of a school at one particular point in time – it is a *snapshot* and therefore *static*. Pedagogy, however, always involves processes. It is *dynamic*, open to all kinds of results and interested in developments over time. What is "measured" today may turn out to be quite different tomorrow (Rauschenberger, 2010). A standardised assessment can only document a relatively abstracted activity – one *temporary stage* along a learning path. It does not assess readiness to help, solidarity or responsibility, does not inquire about the ability to ponder, to grapple with a problem, the search for a meaning to life, the countless stumbling blocks of trial and error, discovery and practical learning. Nor does it measure democratic action and religious experience.

Rowing the State's Boat without Rocking it

Teachers too are seriously impacted by the assessment procedures, for this type of neoliberal reform to society is a form of "governance", since the state is using external evaluation to install a new form of *management regime*. This regime is both hybrid and tightly knit: it takes away responsibility from teaching staff. Teacher teams are to become "self-management committees". The old tradition of hierarchical control mechanisms, the issuing of instructions and interference by the school board seems to have vanished into thin air. "The steering work has been handed over by the helmsman to the rowers, who are now not only responsible for rowing but also for the steering, but of course only if that suits the helmsman and the captain (or rather, the ship's owner)" (Schirlbauer, 2005, p. 79). The boat is "rowed" and "steered" unobtrusively, without the powers that be being involved. The "rowers" are united by the assessment quality criteria *in harmony* with national education standards. The team pull themselves along the guiding rope of the managerial school. Every member is expected to check whether the quality criteria are being fulfilled. This also affects teamwork, since there now exists a flat hierarchy. Supervision is mutual:

everybody is forced to watch their colleagues. This is camouflaged by terms like "quality circle", "steering committee" or "networking".

This subtle form of new management is encountered by organisation *cultures* that normally function quite differently with respect to their pedagogic brief. Teachers belong to a wide range of social backgrounds, follow certain behavioural rules and values, and they are used to making problems disappear. Every teacher appreciates a certain amount of job independence and is anxious to preserve it. Cooperation amongst colleagues is only cultivated as far as it does not interfere with one's *individual autonomy*. The reward for being able to work in peace entails leaving one's colleagues in peace. This *implicit non-interference* is embedded in an equality myth, which attempts to immunise everyone against internal or external attack. Hans-Günter Rolff calls it the equality-autonomy syndrome (Rolff, 2001). Thus, evaluation and the new self-management demands collide with a socio-psychologically volatile *vertical structure* inherent to staff networks, which can only be altered constructively by long-term learning processes. How much influence such processes have on people's emotions and professional self-perception is difficult to gauge.

Summary and Outlook for the Development of Schools

What is the point of school? No one seems to be asking this question any longer, for there is no school-theoretical debate in the FGR that could address the issue. Although educational policy adheres to strict requirements, and curricula still subject schools to a demanding mandate, we are nowhere near to fulfilling the criteria in practice. Instead, far too much attention is paid to the storm clouds surrounding the reforms. These are highly charged but transmit their energy in the wrong direction. A powerful alliance educational politicians, labour market experts and empirical research scientists are now imposing their definition of school. They claim the right to introduce new concepts to control schools by discrediting the educational ideals of the new humanists. A general education, i.e. man's endeavour to understand the world without any ulterior motives, is viewed as an old-fashioned and even pseudo-religious doctrine of salvation. Such humanist thinking is too pathetic, too superior, too remote, too pretentious, too ideological and too focused on "inner values". It is just not capable of dealing with the hard demands and realities of society (as Tenorth more or less puts it, 2008). The document "Rethinking Education" published by the Vereinigung der Bayerischen Wirtschaft (the Association for the Bavarian Economy) in 2003 and mainly written by Dieter Lenzen states:

> As *educational policy's definition of a general education* as a prerequisite for a successful career has failed both from a historical and from a learning-psychological perspective (there is no empirically proven relationship between the acquisition of general formative, classical content and life skills), the present recommendation substitutes the term by *knowledge-based, skills-oriented and value-bound career qualifications*. (VBW, 2003, p. 174; verbatim quote)

In one fell swoop a rich tradition is eliminated and replaced by knowledge, skills and career qualifications (whatever the latter means). General education is regarded as having exceeded its sell-by date to such an extent that it had better discarded quickly, since it is of no advantage whatsoever for CVs on the competitive international market. At the same time, however, as the document's title indicates, the term education is preserved and subsumed in "educational standard". What this really means is: adaptation, self-management, multiplication of human capital, and useful employees, instead of teaching critical thinking and judgement, or ethically responsible behaviour and solidarity.

Whoever speaks out in favour of educational competivity, is taking a considerable risk at the system level, because market-oriented controls inevitably mean that schools will fail! Furthermore, the question is how successful the new form of target management really is. Studies show that changing schools into service enterprises leads to a permanent pressure to succeed, to (public) comparison of results and to enormous competition among schools. From a neoliberal perspective failing schools are part of social evolution. It is simply assumed that bad practice will be eliminated. Faced with existential threat, it is argued, new creative energy could be generated for a turnaround. The tools at hand are school closures and re-openings, replacing the whole management or part of the staff, merging various schools and altering the school category. For such radical strategies experts use the term "creative destruction" (cf. Quesel & Husfeld, 2013). It is remarkable how much the focus of German research has been modified. Whereas from 1980 to around 2000 the emphasis was on criteria to help the "good school" succeed, now research is pursuing the mantra of neoliberal political thought: failing schools.

In England and the USA the effects of stringent quality comparisons can be analysed quite easily with the aid of uniform standards, assessment, rankings and competivity. Success has been very limited and a number of unfavourable side-effects have ensued (cf. Weiß, 2009; Herzog, 2013). In the USA the targets set by the Obama administration for 2014 were unable to be met by 48% of schools (Quesel & Husfeld, 2013, pp. 40–41). At the end of their careful analysis Quesel & Husfeld conclude that "a clear trend in better *learning outcomes* can neither be observed in England nor in the USA" (idem., p. 54). The results (quoted here) are disheartening:

1. The competition pressure on teaching and management staff is having a negative effect on schools.
2. Competition pressure has perversely led to declining rather than growing educational performance.
3. Competition pressure leads to curricular and pedagogical poverty, with disastrous cultural consequences.
4. Focusing on "heroic" role models amongst teachers and administrators distracts attention from the issue of social disadvantage as the main cause of problems in education.

5. Deregulation allows companies, religious communities and other private actors to exert a greater influence on the education system.
6. Deregulation helps cement and in fact strengthen existing social inequality.
7. "Failing Schools" produced by standards and performance tests are not elements of creative destruction but the product of a reductionist definition of school quality (Quesel & Husfeld, 2013, p. 54).

The trend described here – market-orientated control, declining school quality, lower teaching standards, greater social inequality and resulting failing schools – is everywhere. It has also reached Germany. The first examples of radical turnarounds at schools in Bremen and Hamburg have been documented. Strategies include school closures and re-openings under a new management, as well as replacing part of the teaching staff and switching schools to a new category (see the overview by Huber & Muijs, 2012).

Today's German school has become caught up in contradictions by wanting integration and inclusion and yet following the economic imperatives of the job market. It calls for special needs to be met but responds with uniform standards which promote selection. It demands a wider range of teaching methods and yet subjects instructors and pupils to rigid standardised tests. It proclaims an interest in developing the personality of each individual, but fails to explain how the great quantity of materials taught can be made subjectively meaningful for young people. Many teachers experience the above tensions and fall into the trap of making learning simpler. Conversations with heads and school boards reveal again and again that the German-wide skills tests actually teach pupils *strategies* for reaching goals rather than actual content. Behind closed doors they add that success is bought by trivialising contents and lowering performance requirements. Andreas Gruschka (2011) investigated this aspect and discovered that pupils are given "carefree" access to knowledge by means of certain task formats. Publishers offer numerous materials that cater for a simple schematic method. Contents are reduced, streamlined and made more manageable without the subject matter being explained in any detail. This is taken to extremes, for instance by including the solution in the task description, which occurs in German and History. The solution can be worked out with the aid of text analysis, a search performed by skim-reading the key words in the text – and the solution is in the bag. In brief the general trend is towards avoiding struggling with concepts, in-depth searching for meaning and content, critical thinking, and distinguishing between knowledge and truth. Young people are taught to repress their instinct to question; instead, the learning process is completely formalised (Gruschka, 2011). Yet as soon as questioning and thinking are abandoned in favour of rapid one-size-fits-all answers, education has ceased to exist. If school is to contribute significantly to young people's developing a voice and coming of age, it must have the courage to organise learning (even if this goes against the grain of schematisation) so that students have the opportunity to follow up questions and fill in the gaps among the contents they are deemed to have mastered. Instead

of 45-minute lessons, school needs "learning score" time frames that are flexible enough to appeal to the learning dynamics of children and adolescents (Schönig, 2014).

This leads us to a further problem which has hitherto been largely ignored by educationalists: the approximate 20% of German students who score below standard in the PISA test. They often become anti-school from an early age and are resigned to not doing well in tasks. They feel school is taking away a big chunk of their lives. Simplifying subject matter in the manner described above is no help. What therefore can be done to make school *interesting* for these people and how can it identify, and help them with, their real problems? This is not a didactical matter related to school subjects but a genuinely pedagogical task. School, Hans Rauschenberger (2008) claims, must allow people and content to come together in the learning process, with the result that young people *experience their own ability*, which of course is completely different to staring at statistics, comparative values and rankings.

What is at stake here is the need to make teachers accompany young people on their search for a viable relationship to themselves, their fellow human beings and society as a whole. Above all, in light of the enormous structural objectives which postmodern society demands of the young generation, von Hentig considers *education* to be a matter of survival. The big societal challenges such as living together peacefully, tolerance towards other ethnicities and religions, the careful management of natural resources, and putting up resistance against the consumer goods industry and digital media, etc. – all this is the responsibility of modern education. It serves to make young people fit for society. School has to ensure first and foremost that attitudes taught today shape our sense of community tomorrow. Then school makes sense! Again, this ideal cannot evolve individually but requires a collective struggle for knowledge and insight, leading to community spirit. Community spirit, according to Reichenbach (2010), "develops in a culture of thoughtfulness, inquiry and scepticism, not in the transfer of opinions and attitudes, however useful and adequate these might appear. A good school promotes community spirit" (p. 11). Perhaps this is the hardest hurdle to overcome. Schools rarely manage it but it is certainly well worth striving for today.

NOTE

[1] By the schoolyear 2012/13 compulsory educational standards had been introduced in all the German states in: German and Maths at elementary level (4th class); German, Maths, and a first foreign language (English or French) for the Hauptschule certificate (9th class); German, Maths, a first foreign language (E or F), Biology, Chemistry, and Physics for the Middle School certificate (10th class); German, Maths, a first foreign language (E or F) for the General Higher Education Entrance Qualification at Gymnasium (KMK, accessed on 16.12.2013). Furthermore, from the schoolyear 2014/15 standards will be introduced at Gymnasium in the subjects Biology, Chemistry, Physics, as well as standard Abitur exams from the year 2016/17. (KMK, accessed on 16.12.2013)

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13. "IT TAKES A VILLAGE" – (CATHOLIC) EDUCATION IN THE 21ST CENTURY

BILDUNG IN THE 21ST CENTURY: EDUCATION OR TRAINING?

German School Reforms in the Aftermath of PISA 2000

The first PISA results had a devastating effect on the German educational community. The so called "PISA shock" was immediately followed by a paradigm shift in educational politics, replacing education with qualification, knowledge with expertise, and the attempt to make education quantifiable. According to Schönig (2014) PISA and TIMSS, for the first time in the history of the German school system, brought the two dimensions of school development and testing together. Now the state seemed to be able to measure the students' success as well as the benefits of its education policies. But as the reactions, especially to PISA 2012, show, this procedure is questioned by pedagogues, teachers, parents, and students alike. Schönig (2014) points out that PISA and all the following reforms are rather more interested in results than in education. Starting in 2004 Germany implemented VERA, *Vergleichsarbeiten in der Schule* [= comparison tests in schools], as one further national way to measure and quantify educational success as well as to compare the school systems of the sixteen federal states. Teachers and teachers' unions criticized the rapid increase of testing as a waste of time counting it among the more severe illnesses of the German education system and naming it an "-itis:" *Testeritis*. After ten years of VERA-testing some of the major teachers' unions in Germany, the GEW, GSV, and VBE, claimed that VERA had failed its objective and had left no noticeable impact on school development (Schulniveau, 2014).

In curricula the old learning objectives have been replaced by educational standards, *Bildungsstandards*, adding to the problem: According to Maier (2009), Frühwacht (2012), and Schönig (2014) German teachers still have not been able to fully adopt the concept of *Bildungsstandards* as a means of facilitating and advancing their students' education. Instead they often tend to practice teaching-to-the-test leaving their students with neither qualifications, nor education. The general public got the impression that schools only care for training our children for the economy while making a bad job of it at the same time. However, this problem is not limited to Germany. In their open letter to the OECD Meyer and Zahedi (2014) got to the heart of the matter:

P. Siljander et al. (Eds.), Schools in Transition, 229–239.

> […] – by emphasizing a narrow range of measurable aspects of education, PISA takes attention away from the less measurable or immeasurable educational objectives like physical, moral, civic, and artistic development, thereby dangerously narrowing our collective imagination regarding what education is and ought to be about;
>
> – as an organization of economic development, OECD is naturally biased in favor of the economic role of public schools. But preparing young men and women for gainful employment is not the only, and not even the main goal of public education, which has to prepare students for participation in democratic self-government, moral action, and a life of personal development, growth, and well-being […]

PISA focuses mainly on mathematics and sciences leaving out art, music, history, and social sciences thus presenting the danger "that educational standards undermine an enriched education" (Schönig, 2007, p. 494). Following educational standards and measuring education with standardized testing has nothing to do with education in the traditional sense: it is training at best. It produces people trained to accomplish their given tasks, people who are supposed to be able to function in our economy. What educational standards and standardized testing do not produce are individuals capable of setting their own standards instead of just fulfilling predetermined ones. Schools should enable adolescents to recognize, raise, and use their full potential. But by focusing on performance instead of potential, German schools – especially in Bavaria with its three-tier school system – often deny students any chance of reaching their potential. Thus educational standards and standardized testing have just become one more tool for selection.

In Germany the social background still is the decisive factor concerning how far a child can go in the school system. But instead of enabling children, instead of caring for their individual needs and supporting their strengths, schools keep putting children into batches – according to their age – and keep measuring them according to their ability to do tests. Standardized testing just added another stress factor for grade schoolers; the VERA test, for example, takes place in 3rd grade. Schools should do the exact opposite of what they are doing right now.

And again, this social gap is not only a German problem and standardized testing has been going on in other countries for decades as well. The change from industrial societies to knowledge societies has turned education into a valuable resource. This is mirrored in Angela Merkel repeatedly calling the *Bundesrepublik* [Federal Republic] *Bildungsrepublik* [Educational Republic], as well as in George W. Bush's *No Child Left Behind Act* of 2001. Already in 1996 Hillary Clinton wrote about improved IQ scores in children that had the chance to participate in early childhood education programs:

> Bear this research in mind when you listen to those who argue that our nation cannot afford to implement comprehensive early education programs for disadvantaged children and their families. If we as a village decide not to

> help families develop their children's brains, then at least let us admit that we are acting not on the evidence but according to a different agenda. And let us acknowledge that we are not using all the tools at our disposal to better the lives of our children. (p. 61)

Her book *It takes a village* is interesting for another reason as well: she raises the question of who should educate our children and take care of them. At the same time she depicts the nation, the American society as a whole, as the proverbial village. Despite the fact that rather conservative parents share Rick Santorum's opinion that *It takes a family* (2006), it is true that especially in the 21st century it takes a (global) village to raise a child – at least for two reasons: first, children nowadays spend more and more time at school. Until PISA it had been quite normal in Germany, even for high school students, that school ended around one o'clock in the afternoon. This changed with the school reforms following the "PISA shock" and now full-time schools are becoming more and more common in Germany. Second, families have changed and one is hard pressed to find a typical traditional family today. Often both parents have to go to work, or children are raised by single-moms or single-dads. So schools have to take over caring for the children while their parents are working. Teachers and peers become the villagers – and the school itself becomes the village where the adolescents spend the most part of their day, the most part of their youth.

Although they are the minority there are those in Germany who would follow Rick Santorum's argument that families are the primary arena for lessons in social functioning (Santorum, 2006). Bavaria's conservative political party, the Christian Social Union (CSU), for example, successfully fought for the so called *Betreuungsgeld*, a child care subsidy meant for home-based care by parents, in order to underline the importance of families. Most of the full-time schools in Bavaria are so called *Offene Ganztagsschulen*, which means parents can decide whether or not to send their children there in the afternoon. Unlike at the so called *Gebundene Ganztagsschule*, which means compulsory full-time school, at the *Offene Ganztagsschule* there are no lessons in the afternoon; they just function as a form of daycare (cf. Dollinger, 2012). Nevertheless, there is a growing number of parents who would like to send their children to either one of the types of full-time schools in Germany. In the school year 2012/13 only 32.3 percent of all German students went to full-time schools while 70 percent of the parents would have liked to send their children to one (Klemm, 2014; Bildungspolitik, 2013). According to Klemm (2014) the expansion of full-time schools in Germany is even stalling.

One further challenge for the education system is the rising competition within our new knowledge society. According to Böckerstette and Weber (1995) the middle-classes are completely absorbed in the problems of "social climbing" (p. 318, translation is mine JAF). After PISA and the increased pressure of standardized testing the competition has got worse. This is why middle class parents try to avoid sending their children to comprehensive schools. They think that their children would be held back, and that only disadvantaged children would profit (cf. Nagy, 2015).

Due to PISA, the immense differences between the federal states, and the different approaches to reforms, the German federal school system keeps losing trust while parents are looking for alternatives for their children.

Rise of Private Schools in Germany

PISA and what followed – standardized testing, school reforms, changes in education policy – led parents to worry about the state school system. Especially parents who have an *Abitur* [high school diploma] themselves send their children to private schools. Although numbers have been increasing since 1992 there is a noticeable boost after 2001, the year in which the first PISA results were published. In 2011 already 8 percent of all German students went to private schools. Between 1992/93 and 2011/12 the number of private schools in Germany increased by 69 percent reaching a total number of 5,467 private schools (Statistisches Bundesamt, 2012, pp. 13–15). Although there is no significant difference in the PISA test results between public and private schools, according to Weiß (2011), parents still prefer private schools over state schools, because of their better atmosphere for learning and their integrated approaches.

Private schools also fill gaps within the public school sector: about 10 percent of all students at private schools go to *Förderschulen* [special-needs schools / special schools]. However, the majority of German private school students, 40 percent, go to a private *Gymnasium* [academic high school], 17 percent visit a private *Realschule* [junior high school], and 11 percent go to private *Grundschulen* [elementary schools]. Two thirds of all private school students attend church schools (Weiß, 2011). According to Schönig (2007) there are two reasons why "parents are motivated to choose a Christian school": first, "[p]ublic state schools are accused of favouring rationalised learning, which does not penetrate to the core of young people" and second "because such schools know how to interrelate the various dimensions of what it means to be human […]" (pp. 484–485). Parents are choosing schools that promise to treat their children like human beings with their own individual needs, hopes, and dreams—and not just as standardized human resources. Schools should teach values, not only competencies. Since two thirds of the parents choose Christian schools we will have a look at the pedagogical concept of Catholic schools and the question, whether they can fulfill the parents' hopes.

The Catholic approach: "Whoever welcomes one of these little children in my name welcomes me." (Mk 9:37)

DOING THINGS DIFFERENTLY

For a long time the Catholic church had been the only provider of schools, or education as such. The German word *Bildung*, which goes back to the Old High German word *bildunga*, still carries a reminder of the religious roots of education (cf. Dohmen, 1964/65). In the Middle Ages *sich bilden*, to get an education, meant aspiring to

become more and more like God, in whose image, German *Bild*, we were created. This pursuit had already been described at the beginning of the 14th century by the German mystic Meister Eckhart (cf. Flasch, 2006; Witte, 2010). The first schools were either monastic schools, or cathedral schools. Until today "both the Christian message of salvation and the unconditional acceptance that man is created in God's image underlie the personal definition of Catholic schools" (Schönig, 2007, p. 485).

Not only do Catholic schools have a long tradition, they also have a long tradition of doing things differently. Before Pope Boniface VIII in 1298 issued the papal bull *Periculoso* requiring nuns to be cloistered, nuns had run schools – being the first women in the teaching profession (cf. Ennen, 1996; Bertelsmeier-Kierst, 2008). And women could teach again, even with the Pope's blessing, after "the papal bull of 1612 that established the first cloistered Ursuline community in Paris recognized, not the usual three solemn vows of medieval monasticism, but four […] poverty, chastity, obedience, and teaching" (Clark, 2007, p. 25). In the New World the Ursulines broke with another unwritten rule: the sisters in New Orleans following their agenda of universal female education also taught Black students who shared within the convent's walls classrooms and bedrooms with white students. When New Orleans came under Spanish rule in 1767 this practice was scrutinized by the new colonial leaders, but the Spanish "accepted the religious context from which the nuns' independence sprang" (Clark, 2007, p. 4).

Independence is the keyword here. Catholic schools are still able to elude state control to a certain degree; in Germany their independence is guaranteed by the parents' right to freely choose their children's school as well as by religious freedom (cf. Schmitz-Stuhlträger, 2009). Catholic schools, and private schools in general, are seen as valuable additions to state schools providing different perspectives and topics. Their rights are guaranteed in the *Privatschulgesetz* [private school law] of the federal states. Not only in Germany are Catholic schools seen as an enrichment: Bauch (2014) argues that the "presence [of Catholic schools] guarantees cultural and educational pluralism and, above all, the freedom and right of families to see that their children receive the sort of education they wish for them" (p. XV). She also emphasizes that they go "beyond the requirements of a public school curriculum by focusing on moral and ethical values" thus serving "the public interest" by fulfilling "a high moral purpose important to all humankind" (p. XVI).

CATHOLIC SCHOOLS IN GERMANY AFTER 1945

Following the events of the Reformation and Catholic Counter-Reformation there emerged a denominational school system in Germany in the 17th century, which came under state control and existed throughout Western Germany – especially at the grade school level in the form of *Volksschulen* and *Hauptschulen* – till the middle of the 20th century. Lower Saxony and North Rhine-Westphalia are the only federal states in which this form of denominational schools sponsored by the municipality still exists, but as Schönig (2007) shows their numbers are in decline. There are

two other groups of Catholic schools in Germany, health services schools and non-vocational private Catholic schools, of which the latter is not only the biggest group of Catholic schools, but also "particularly interesting," as Schönig argues, because they "are fully recognised as alternative schools in accordance with Article 7, Section 4 of the German Constitution" (p. 482).

These non-vocational private Catholic schools, which used to be run by religious orders, had not only survived secularization but also repressions during the Third Reich. Only since the 1980s there had been changes due to the declining numbers of members in religious orders. Nowadays non-vocational private Catholic schools are mostly sponsored by dioceses, or "Schulstiftungen" and "Schulwerke," which are foundations under public law. These changes also raised the question of how these schools should define themselves after the disappearance of men and women religious who had made them easily recognizable as Catholic (cf. Nothaft, 2012, pp. 32–34). Catholic schools were in need of their own unique profile.

Ironically one of the two events leading to the framing of the "Marchtal Plan" had been a survey of Germany's educational landscape whose ramifications were not unlike those of PISA 2000. But first came the abolition of municipal denominational schools in Baden-Württemberg in 1955 leading to the foundation of the *Katholisches Schulwerk Baden-Württemberg e.V.*, supported by the *Diözesanes Schulamt* of the diocese of Rottenburg [since, 1978: Rottenburg-Stuttgart]. These events coincided with a general educational reform in Baden-Württemberg and made it necessary for the now *Katholische Freie Grund- und Hauptschulen*, private Catholic grade schools, to find their own pedagogical concept.

Then in 1964 Georg Picht coined the term *deutsche Bildungskatastrophe* [German educational disaster] establishing that compared to other (western) countries Germany was spending far too little for its schools and universities, that the three-tier school system was preventing equal opportunities for children from all social classes, and that all of it would lead to a lack of qualified trainees and impede Germany's contestability. He criticized that German schools were unable to face the challenges of the modern industrial society and could not keep pace with scientific progress (Picht, 1964). What followed was a general call for the *Verwissenschaftlichung* [scientification] of schools. Learning and teaching from pre-school to university should be realigned according to scientific standards. All of a sudden children were no longer the focus of education, but scientific discipline was:

> […] die Diskussionen in den Lehrerzimmern drehten sich nicht mehr um Anschauung, Selbsttätigkeit, Lebensnähe und Kindgemäßheit, sondern um Lernzielorientierung mit Richtzielen, Grobzielen und Feinzielen und um Testverfahren [… the discussions in the teachers' lounges were no longer about ideas, self-directed learning, being true to life, and suitability for children, but turned to the orientation according to learning objectives, divided into grade learning objectives, terminal objectives, and enabling objectives, as well as to testing methods, JAF]. (Böckerstette & Weber, 1995, p. 308)

This does not only sound similar to the changes after PISA 2000, it also caused similar reactions back in the 1960/70s as PISA did 2000 since it did not match the Catholic idea of the dignity of humankind, and especially the dignity of children. In the spirit of Mark 9:37, "Whoever welcomes one of these little children in my name welcomes me," Catholic schools would not give up children as the focus of (Catholic) education.

In order to support and guide the Catholic schools in his diocese Bishop Georg Moser of Rottenburg issued the *Grundordnung für die Katholischen Freien Schulen in der Diözese Rottenburg* [constitution for the Catholic schools in the diocese of Rottenburg] in 1976. And Msgr. Max Müller, head of the diocese's *Schulamt*, forced the foundation of a *Kirchliche Akademie der Lehrerfortbildung* [church academy of teacher training] in the former Premonstratensian abbey in Obermarchtal. In 1979 the first Catholic schools in Baden-Württemberg started testing new educational concepts while new theories were discussed and developed in Obermarchtal. In 1987 Bishop Moser could implement part one auf the "Marchtal Plan" followed in 1989 by part two put into effect by his successor Bishop Walter Kasper. Since the "Marchtal Plan" has its historical origins in grade schools in Baden-Württemberg it used to be limited to this type of school and this federal state (Böckerstette & Weber, 1995). But since then it has not only been implemented in other federal states – mostly in eastern Germany and Bavaria – and even Austria, but it has also been adapted for the other school-types in Germany. Now there are also "Marchtal-" *Realschulen, Gymnasien, Gesamtschulen,* and *Ganztagsschulen*.

CALLED TO BE FREE: THE "MARCHTAL PLAN"

At the core of the "Marchtal Plan" was the continuing struggle to keep children the focus of education. Böckerstette and Weber (1995) underline that Catholic schools were under no circumstances willing to give up the orientation towards children:

> Ausschlaggebend für diese Option für das Kind war die christliche Anthropologie. Demnach galt es ernst zu machen mit seiner leib-seelischen Ganzheitlichkeit, ernst zu machen mit seiner Freiheit, es ernst zu nehmen als einmalige, unwiederholbare, voll gültige Person. Nicht zuletzt galt es, das Kind anzunehmen so wie es ist mit seinen Stärken und Schwächen. [The main reason for this option for the child could be found in Christian anthropology. Accordingly, it was necessary to take their physical and spiritual unity seriously, the same was true for their freedom, and they had to be taken seriously as unique, unrepeatable, full-fledged persons. Finally, it was necessary to accept children as they were with all their strengths and weaknesses, JAF]. (pp. 309–310)

Focusing on two principles of Christian anthropology, that humans are made in the image of God, and that humanity is called to freedom – based on Gal 5:13, "You, my brothers and sisters, were *called to be free* [emphasis is mine JAF]," *Zur Freiheit berufen* became the leitmotif of the "Marchtal Plan" – the educational goals of the

"Marchtal Plan" were drafted and put into educational practice. Here the "Marchtal Plan" draws on the progressive educational movement and makes use of "Montessori education," Petersen's "Jenaplan education," and Gaudig's "*Arbeitsschule*," among others (Schönig, 2014). Its structural elements are: the *Morgenkreis* [morning circle], the *Freie Stillarbeit* (*FSA*) [literally: free seatwork, better: individualized learning], and the *Vernetzter Unterricht* [interconnected education]. Each of these elements focuses on the individual. In the *Morgenkreis*, for example, the children come together before the lessons start on Monday and can share their experiences over the weekend. There is no hidden agenda, no lesson to be learned, and no competence to be mastered. It completely belongs to the children. Böckerstette and Weber (1995) emphasize its "'*zweckfreie*' *Atmosphäre* ['purposeless' atmosphere]" (p. 326). During *FSA* the students fulfill different tasks form subjects of their own choosing at their own pace. The only "limit" or guideline is the schedule for the whole school year that has to be completed within the year. This mirrors on the one hand Maria Montessori's assumption that children at liberty to choose and act freely would act spontaneously for optimal development, and on the other Gaudig's *Arbeitsschule*, or even John Dewey (2001): "It is [the child] and not the subject-matter which determines both quality and quantity of learning" (p. 108).

It becomes obvious that although the focal point is the individual child there also is another level: *Morgenkreis* and *FSA* cannot function without "the others:" the *Morgenkreis* at the beginning of the week is about finding oneself by sharing one's adventures and making contact with one's fellow students. During *FSA* the children are allowed to help each other – some of the tasks are designed so that they cannot be done alone – and at the same time they have to be careful not to disturb the others. The individual learns about the responsible use of freedom by using it, and about community by being an integral, but individual, part of it. This is reflected in the third structural element, the *Vernetzter Unterricht*, or interconnected education, as seen in Figure 1. The individual dealing with the topic is clearly the focus, but neither the person nor the topic are isolated. For example: the individual can rely on the group for help (social dimension), solve the task at their own pace, or even on their own (personal dimension), and make use of their different skills / ideas learned in all possible subjects of study. This holistic approach goes far beyond cross-curricular teaching (Böckerstette & Weber, 1995). Instead of emphasizing the single subjects and looking for common topics to discuss in the different subjects, for example, "the enlightenment" in history, art, and religion – teachers (and learners) following the "Marchtal Plan" would look at the topic at hand, make it the center of the question and discuss it using different approaches thus eliminating the borders between the subjects. Each child is able to bring their personal strengths to bear, no matter whether they are good in English, Music, or Mathematics. They learn that everybody can contribute, that each skill is useful, and that everybody has their own value. To fail is no big deal, because there are others to help you and next time you can help the others. Children in this environment are not in danger of becoming lone

wolves, since they know that together they get can the farthest. Through constant interaction with teachers and peers they grow personally. They feel accepted and valued as they are.

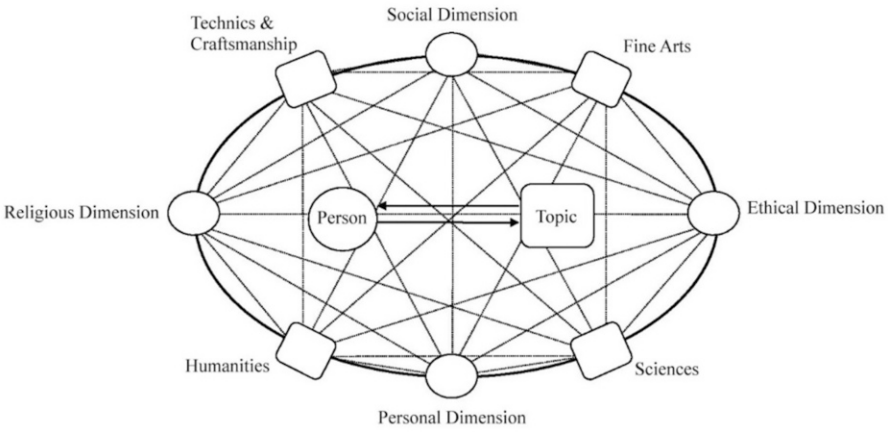

Figure 1. Marchtal Plan: Interconnected education.
(adapted from Bischöfliches Schulamt, 2002)

By following the "Marchtal Plan" and applying interconnected education with its holistic approach Catholic schools provide children with a learning environment in which each of them gets the chance to make the best use of their abilities, hone their skills, and grow as active parts of a supportive community. They also provide them with a living space in which not only their intellectual needs, but also their emotional needs are taken care of and in which they can feel secure. The school becomes the proverbial village.

CONCLUSION: IT TAKES A VILLAGE

In the 1960s keeping the focus on the person was appealing to a generation who rebelled against a society that had high demands: employees and executives alike should have professional competence, should adapt to the economy, should identify themselves with institutions, make sacrifices, and above all place the good of the company above their personal well being. Not persons were important, but competences (Böckerstette & Weber, 1995). It was not the individual who had value, but only what he or she could contribute to further the economy. Not much seems to have changed between 1960 and 2015. I would like to expand Wolfgang Schönig's (2014) picture of the discussion about school development as a pendulum. Schönig points out that the discussion, just like the pendulum, keeps swinging from one side to the other and back again. And the picture fits: in the 1960s it was all about learning

objectives, scientification and curricula, now it is all about educational standards and competencies. But there is another part of the picture: by swinging from side to side the pendulum keeps the clock ticking – there is performance. And so there is in school: no matter whether we talk about curricula or educational standards, what we expect, as a society, is performance and achievement. And this again needs to be measured, like the clock takes time. Your performance becomes who you are. All this leads us to forget that children are no clocks, no machines. Educational achievement is not necessarily something that can (or should) be measured, because it differs for everybody.

In his recent book *Burnout-Kids* Schulte-Markwort (2015) shows how the constant pressure to perform according to certain standards destroys our children. Starting with grade school they learn that they always have to have the best marks in order to be able to make a living. For the reasons discussed above – social background, no traditional family, social climbing – families often cannot provide the necessary support for their children. So it clearly takes more than a family to raise a child. But by focusing on performance, selection, and grading state schools in Germany are, at the moment, not up to the task. And the school reforms triggered by PISA set the wrong goals: standardized testing might not only lead to teaching-to-the-test, leaving the students without usable skills, but also enforces competition. Thus promoting a climate of obstruction, instead of cooperation. As Schulte-Markwort (2015) confirms children living in today's meritocracy suffer burnout, and often feel inferior to their peers, or even worthless. This feeling might be intensified by the fact that PISA highlights the so called MINT subjects seemingly devaluing the arts and humanities.

Since our society is increasingly heterogeneous it becomes even more important to value each child for their own sake, regardless of their marks, or achievements. With the "Marchtal Plan" Catholic schools have the means to help children to become independent, self-reliant, confident, creative and open persons able to set their own standards and using their personal freedom responsibly. Catholic schools can be the village where adolescents learn to live a full life in the global village.

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ANDREW STABLES

14. SCHOOLING VIS-À-VIS LEARNING

The Case for Reducing Compulsion

INTRODUCTION

The argument for reducing, but not abandoning, compulsion in schooling rests on a set of premises to be explored in turn in the opening sections of this chapter. They are (1) that there is a pragmatic case for some compulsory schooling, (2) that logically there must be limits to it, (3) that schooling has a social function that exceeds, and sometimes omits, that of developing the student, and that (4) that compulsory schooling limits risk taking and the learning that arises from the consequences of one's preferences. (The argument is made that in extremis all learning can be regarded as thus arising).

In the final two sections, possible criteria for determining the extent of compulsion are considered, followed by one possible policy scenario that arises from the preceding argument which is a particular version of the case for school vouchers.

THE PRAGMATIC CASE FOR COMPULSORY SCHOOLING

Although there have been powerful "de-schooling" arguments (Botsford, 1993; Illich, 1995), and although there has been increased uptake in various locations of home schooling options (Ray, 2014), the status of formal, compulsory schooling has not been fundamentally challenged in any society that has been able to afford to develop it. Although part of the reason for this may have to do with a non-educational function of school (see 3. below), there has been widespread acceptance of an equity argument arising from philosophy of education and sociology of knowledge.

This argument, articulated by John Dewey in the early Twentieth Century, and broadly along the same lines by Michael Young in the late 1900s and early 2000s, relates to access to powerful knowledge the acquisition of which enhances life chances.

In *Democracy and Education* (1916), Dewey notes that older, less complex societies educated through induction and apprenticeship. That is, to use terms employed much later, children simply enjoyed peripheral participation in adult communities of practice (Lave & Wenger, 1991). While in a small collective community, this would induct children into a wide range of established practices, as societies grow and roles and knowledge become more specialised, such induction becomes increasingly narrow. Also, the potential interference of children in increasingly complex adult

P. Siljander et al. (Eds.), Schools in Transition, 241–253.

practices would increase. Dewey simply notes that it is an inevitable feature of increasingly complex societies that schooling develops a central social role.

Young's concern is with access to knowledge and skills rather than broader social renewal (2011). Young argues that while children from privileged backgrounds may feasibly access a range of high quality learning possibilities, there are certain forms of specialist knowledge that cannot be universally available in the domestic sphere. Systematic training in science and technology, for example, can only be available to all under a system of formal and inevitably compulsory schooling. Although it is for each generation to find its own rationale for schools, this is how Young justifies compulsory schooling for our times.

THE LOGIC OF LIMITING COMPULSORY SCHOOLING

Accepting a case for compulsory schooling is not synonymous with arguing the more compulsory schooling, the better. Indeed, as schooling is only one aspect of life, and as it is commonly, if not universally, regarded as a preparation for adult life, there must be desirable limits on it. It would not be valid to argue that an entire life in school would be preferable to one in which schooling is limited on the above grounds.

This notwithstanding, there has been very little policy debate about the limits of compulsion in schooling. (This point is addressed rather more fully in Stables 2010 and 2011.) Thus far the emphasis on school policy, at both national and international levels, has been on increasing compulsion at the level of attendance, along with a good deal of presription regarding curriculum and assessment, in order to increase the life chances particularly of disadvantaged or academically unsuccessful young people. In England and Wales, for example, the school leaving age was raised from 15 to 16 in the 1970s and has recently effectively been raised to 18 by government demands that all 16–18 year olds must be in formal education or training (UK government, 2014). So far, the policy approach has been to argue that more is always better, albeit "training" does not always imply "school". The limits of compulsion on meaningful learning will be discussed under 4. below, but it is first useful to consider the broad social functions of schools.

SCHOOLS AS PART OF THE SOCIAL FABRIC

Although everyday speech is littered with remarks such as, "You go to school to learn", and aggrieved teachers sometimes resort to stressing they are "not childminders", in reality, schools are a necessary part of the social fabric for the medium term whether they are effective educationally or not. To put it crudely, if research were to discover that no schools made any educational impact on any children, schools would still open next week, as the impact on adult economic life of their not so doing would be too difficult to bear. Modern societies operate on the basis that schools are where children go when their parents go to work, and the problems arising from schools having shorter hours than most workplaces are widely aired.

In short, education (in the sense of meaningful learning and personal growth) may be a necessary condition of schooling but is not a sufficient condition. Over time, a complete lack of faith in the educational value of schooling might well undermine it, though in the short term it could not, while there is clearly a value to schooling that is not strictly educational in this sense. Realistically, teachers are, in part, child minders, and sensible debate about the future of schooling should openly acknowledge this.

SCHOOLS AS SITES FOR MEANINGFUL LEARNING

The above considerations raise concerns about how effective compulsory schooling can be in promoting learning in the richest sense: that is, what Marton & Saljö (1976) described as deep learning, learning that engages, motivates and results in innovation as opposed to merely mechanical reproduction.

In addressing these concerns, certain assumptions should be challenged. These are (a) that learning *per se* is either enough or requires specialist help from teachers, (b) that schools can be rich learning environments, and (c) that keeping young people in compulsory educational is more empowering than disempowering.

What is Learning?

In Stables 2006, it is argued that all living can be understood as semiotic engagement, as negotiation of the web of significations that comprises an environment. On this basis, all living entails learning, as we adapt to survive and flourish, and there is no particular form of action or behaviour that is learning. We all, all of the time, test our assumptions against the demands of a new context and modify our responses accordingly.

Despite this ubiquity of learning (for we cannot but learn, in the sense of adapting to survive and flourish), we tend to use the term as a retrospective value judgment, often reserving it for instances in which either the life course changed in a significant way ("I learnt a lot from getting married"; "I learnt a lot from getting divorced") or a recognised formal course of instruction was followed ("I learnt mathematics at school"). However such uses are not sufficient to justify loftier claims for schooling such as "You go to school to learn", or "School taught me how to learn". It would be easier to justify statements such as "School channels learning" or "School helped me to [learn to] sit still and concentrate". These are, of course, valid learning aims, but they fall short of the claims for schools are places of learning that are often advanced in daily life. They fall short of justifying compulsory schooling on the grounds that it is necessary to advance learning in general.

Can Schools Be Rich Learning Environments?

If all living is semiotic engagement, then all learning is semiotic engagement. Living involves a constant repetition and adjustment of responses to environmental

stimuli, understood in the broadest sense (for example, including language as well as biophysical action). "Learning" relates to the taking up and reinforcement of new or modified responses where previous ways of going on prove problematic.

It follows that a stimulating learning environment is also a challenging environment: one in which preconceptions and habits of action are found wanting and encouraged to change. Crudely, a learning encounter, at a conscious level, is one in which what we took to be the case is reappraised; a learning encounter disrupts identity to some degree. This is the case at all levels of scale, from learning that a word is spelt differently to reappraising one's career path or personal relationships.

There can be inappropriate levels of challenge. The environment can be understimulating, resulting in lassitude, anxiety and alienation. Alternatively, the environment can simply destroy rather than prompt adaptation in a particular organism, or person. For example, while a challenging argument may prompt reappraisal, an aggressive one might prompt retreat from the confrontation while a gun to the head might end all possibility of reappraisal.

A stimulating learning environment must be one, then, that offers an appropriate balance of protection and challenge. If we consider the constraints on schools as educational organisations (3. above), we can deduce that the tendency for schools to protect may often override the tendency to challenge at a stimulating level, and that this trend is likely to become more marked, the more mature students become. This trend is exacerbated by the school's tendency to standardise and select for specific functions, which will motivate some while alienating others.

Is School More Empowering Than Disempowering?

There may be no consistent answer to the above question. However, it is clear that the school environment is highly constrained. This does not necessarily constrain learning. If a student is used to enjoying the challenge of, say, classroom based history lessons, she may well frequently find an appropriate level of challenge from this. If, however, her experience is that such lessons are either under or over stimulating, she may well withdraw.

On this account, it is possible to conceive of learning as process as the management of risk, and in retrospect as the consequences of exercising one's preferences. To give a simple example: teacher sets student task; student sets out to either avoid or undertake task depending on which seems more appropriate to personal wellbeing; if the task is open-ended, the student can decide (though the process may not be conscious) at what level of ambition and risk to approach the task. The learning that ensues is the consequence of the student's decisions or preferences in how she approached the task. (Note that the level of learning as an outcome is not always the same as the achievement of a correct answer, which may involve no learning at all, though it may reinforce a positive self-image in that context.)

Particularly as students get older, and think more consciously in terms of their own ambitions, motivations and life planning, it becomes increasingly unlikely

that a standardised and imposed set of environmental stimuli will produce the richest possible learning. Hence we should not be surprised if, for example, many students do consistently poorly in school only to flourish in environments that are less regulated (such as further education college) or offer a form of regulation that tallies with their motivations (such as the armed forces). The older the student, and the more risk is diminished in the learning environment, the more learning itself will be impeded, notwithstanding that some element of protection is helpful in all learning environments. (Examples include health and safety regulations in the work place or mechanisms to protect free speech in universities.)

HOW SHOULD THE APPROPRIATE LEVEL OF COMPULSION IN SCHOOLING BE ARRIVED AT?

To some extent, the answer to this question must vary according to context. However, Stables (2010) offers four criteria that might be used in making such a judgment, summarised as (i) the moral case, (ii) the equity case, (iii) the economic case, and (iv) the empowerment case. To these might be added a fifth: (v) the wellbeing case.

These criteria are explained at some length in Stables 2010, but can be summarised here as follows:

(i) The moral case. The strong version of this case is that society has a collective duty to provide schooling. This version is adopted by the United Nations, in construing compulsory elementary education as a fundamental human right. This is the perhaps the most striking example of subjection to compulsion being regarded as a human right. Unlike most contemporary rights talk, it arguably adopts a Hobbesian rather than Lockean or Rousseauian approach to the social contract, seeing formal schooling as a desirable trading of dangerous individual freedom for protection by a benevolent authority. As detailed in Stables 2010 and 2011, early arguments for compulsory schooling, both militaristic and religious, stressed the desirability of controlling unruly human instincts for the common good.

A slightly softer, but still strong, version of this case drops the deontological concern with duty and adopts the pragmatic, consequentialist view that children need schooling to thrive in modern societies. This view, articulated clearly in Dewey's *Democracy and Education* (1916) may be the default position for many. As an old relative of the author's remarked when asked about his schooling some years ago, "It didn't bother me much." On this account, schooling is necessary though it may hold few attractions.

The weak version of this case is that we have a right to make children attend school. The weakest version of all might argue that children have to go somewhere while adults go about their daily business. Underpinning even this position, however, is the assumption that adults have the right to control children's lives to a considerable extent.

(ii) The equity case. This case can be regarded as a version of the moral case, but it has a specific egalitarian or social justice orientation. Here the emphasis is on the school as a powerful tool for engineering a fairer society. It is an extension of the long accepted case that schools are vehicles for nation building (Green, 2013), and extends this to regarding them as vehicles for increasing equity. This case takes the school as more than preparation for adult society. It can be construed as Rousseauian insofar as it looks to schools to be instrumental in undoing harmful social practices and instilling more pro-social attitudes among the young, albeit the author of Émile would be an unlikely convert to any form of compulsory schooling (Rousseau, 1762). On the equity case, values of sharing and co-operation would trump those of individual attainment and competition, although in the strongest Rousseauean case there would be no conflict between the two.

(iii) The economic case. This case has somewhat interdependent versions that emphasise schooling as either public or private good. The first regards the investment in education as contributing to national wealth, the second as increasing young people's life chances in terms of employment and income. Sometimes running counter to the equity case, this account sees schools as ultimate contributors to gross domestic product, asnd strongly as preparations for life in a market society. Recent debates about the graduate premium and its value in justifying degree-level study illustrate this thinking with respect to post-compulsory education. (For a critical perspective, see Lauder, Young, Daniels, Balarin, & Lowe, 2012).

(iv) The empowerment case. The emphasis here is more on education as a private than a public good. While a major aim of school in the liberal tradition is that of increasing autonomy (White, 1990), the empowerment case emphasises development of skills and competences that will make the student a more successful individual, whether or not as a powerful social actor. Here (though not on, for example, White's account), values of individual attainment and competition may often (though will not always) trump those of sharing and co-operation.

(v) The well-being case. The emphasis here is not on autonomy or empowerment but rather on health and happiness. It is fundamentally a utilitarian perspective (though not all its adherents might be comfortable with the label) insofar as it promotes compulsory schooling as providing a greater possible level of well-being for a greater number than its removal would promote. This well-being could conceivably manifest independent of economic or academic success or financial indicators of social justice. While all the other cases might look to examination results (albeit variously interpreted) as measures of success in schooling, such results would not count as valid measures on this account. Indeed, an increased emphasis on well-being may well run counter to each of the above cases in various important respects.

SQUARING THE CIRCLE: BALANCING THE COSTS AND BENEFITS OF COMPULSORY SCHOOLING

This section will consider the cases for compulsion summarised in 5 i–v above in the light of the arguments in Sections 1–4.

Taken together, the arguments for compulsion share the following elements, albeit to differing degrees: that adults are better placed than children to make decisions over children's lives; that school promotes learning and personal development in some form, and that schooling benefits society in some form.

Adults, Children and Rationality

People (indeed, animals) are more or less rational. Rationality is not an on-off switch that suddenly turns on at the age of 5 or 18 or any specific later age. Indeed, research in philosophy for and with children increasingly shows how very young children can rationalise, though the empirical bases for their deliberations are very limited compared with those who are older (Murris, 2001).

This innocent observation begs the question of the nature of the difference between those we count as children and those we count as adults. In Stables 2012, I argue that being human is always a process of becoming (more or differently) human, and that this is equally the case for the child playing at, say, being a doctor, as for the adult being paid as a doctor. Of course, we look to the adult to cure us, not the child, and we assume the trained adult will make better decisions that are both more rational and better grounded in experience. The key point is that the differences are relative not absolute. No doctor can cure everything (all their patients die), and a child does not make completely irrational decisions, because complete irrationality is empirically impossible. For example, time cannot go backwards other than in science fiction. We can only be more or less rational in our decisions about managing inevitable ageing, and no one can ever achieve perfection in this.

What this tells us is that we are all muddling through life as best we can. While we may develop sharpened powers of rationality (though we may lose them in old age), it is only through response to empirical circumstance that such powers can be honed or, indeed, exercised at all. Insofar as we limit children's range of experience, we limit their capacity to develop their powers of judgement.

Societies inevitably require forms of social organisation, and this entails *inter alia* setting boundaries between the states of adulthood and childhood. However, human relations never proceed harmoniously on the basis that those under 18 (or whatever the age of majority is held to be) cannot think for themselves, or that anyone over 18 can do so perfectly well. Living is rather a matter of negotiation, flexibility and informed guesswork (what Peirce referred to as abduction, or inference to the best available explanation). This inevitably raises the danger of over-compulsion in education for older children preventing them from honing their own judgements through suitable risk taking, as the following sub-section will address. In relation to

this, however, it is worth noting that even children beginning school at age 5 or 6 are not totally dependent; they simply could not survive the changed environment if they were. It follows that as children grow older, their scope for action and experimentation should continue to expand. The question arises as to how far the provision of compulsory schooling aids or abets this process.

The More School, the More Learning?

The psychological literature often differentiates between surface and deep learning (Marton & Saljo, 1976). Deep learning occurs when the subject matter is appropriated as germane to the life course: that is, when what I learn in some way changes who I am. For this to happen, the learner has to be asking "What if?" questions of personal significance. Self-evidently, learning therefore results from the management of risk and the consequence of preference. As children grow older, their scope for action must expand to allow them to maintain a sense of motivation, otherwise they will become indifferent or risk-averse.

It is evident that schooling motivates some students for far longer than others. Those who are deep scientific learners, for example, will be fully engaged in taking their scientific thinking to the next level and may find a formal educational establishment the best environment in which to continue this valuable risk taking. For others, however, the longer spent in this highly regulated environment with its somewhat limited opportunities for risk taking, the more demotivated, anxious or alienated they will become.

Given that schools, as argued above, do not teach learning *per se* but rather channel it, and that society is not prepared to allow those under adult age completely free range, or indeed independent income, for a mixture of reasons that might be argued as good or bad, the challenge becomes to move to a situation in which feasible preference fulfilment can occur as much as possible. On this account, educational policy should be geared towards maximal feasible preference fulfilment, such that when children become legally adult, they have a healthy and balanced approach to risk while being aware of when personal choices can be socially damaging.

Compulsory Schooling: Diminishing Returns?

Throughout much of the Twentieth Century, in Western industrialised countries increasing schooling increased returns on the cultural, social and financial capital (Bourdieu, 1986) invested in it. The present author's father stayed in education to avoid a life in the coal mines and benefited strongly as a result; his son continued this pattern of increased wealth and personal freedom accruing from increased formal education. However, it is commonly accepted that the next generation's prospects cannot be so easily and optimistically computed. There is already debate about the graduate premium with increased scepticism about the value of higher education for an increasing number (Lauder et al., 2012). The mantra that the more one pursued

formal education, the better one would do (likely much better than one's parents) has lost its power. Higher education, at least, is producing diminishing returns.

Of course, increased material wealth and lifestyle opportunity are not the only justifications for education, conceived as a public as well as a private good. Perhaps above each of these stands the development of responsible citizens. As argued in Stables, 2012, responsibility depends upon response-ability: the capacity to relate constructively to others.

The previous subsection argued for a view of learning as risk management and the consequence of preference. Superficially, this may appear a self-seeking and limited view of education. However, response-ability and thus responsibility are not directly schooled but rather develop out of increasing exposure to new and challenging contexts, response to which increases our limits, teaches us about ourselves and others, and makes us realise both our vulnerabilities and the strengths and weaknesses of others. Increased response-ability is a form of soft power, opening doors for the Other in order to develop an enhanced role for the self (as recognised by Rousseau, 1762, but unfortunately not applied equally by him to both genders).

School can potentially limit this increasingly range of valuable, and somewhat risky, encounter. School can also do worse than this by only validating a narrow range of human endeavour and thus rendering the majority failures in the majority of respects.

At one time, educational qualifications were scarce goods, and held high value both for those who possessed them and those who sought expertise. However, they were not the only scarce goods. Most people had forms of expertise that were not connected to formal education but may have been equally valued. Indeed, it could be argued that a person's individual characteristics, and therefore contribution to the world, comprise the ultimate in scarce goods, whatever their nature.

In effect, all valid societal contributions are indeed scarce goods; if everyone could provide them, there would be no call for them. It is therefore counterproductive increasingly to standardise potential contributions through over-channelling learning and making success at school the be-all and end-all of personal value. It is damaging to individuals and also misleading, as the world actually benefits from cultural diversity and a broad range of personal contributions.

In short, standardising education reduces the returns from education regardless of increased performance on a small set of standardised measures, such as examination grades.

SOME MODEST PROPOSALS

The policy suggestions in this section are grounded, unlike many deschooling arguments, in respect for each of the arguments for schooling presented in Section 5. That is, the value, to some degree, of each of the moral, equity, economic, empowerment and well-being cases is acknowledged. However, following the arguments in the rest of this paper, each of these cases is taken as valid only up to a point: that is, the tacit premise of "the more school, the better" is not accepted.

The Tipping Point

At some point, compulsory education becomes counterproductive. (It goes without saying that it should not comprise the entire lifespan.) While it will never be possible to ascertain definitely where this point is, not least because compulsory education has variation within it, and variations also exist among students, it is possible to conjecture on the basis of some evidence.

We know, for example, that Year 9 students in English schools (age 13–14) who were until recently offered subject choices made such choices largely on the basis of choice of future career (Wikeley & Stables, 1999). From a much smaller study, there is evidence that students in Year 8 in an English comprehensive school made virtually no association between making an effort in school and career aspiration (Stables, Murakami, McIntosh, & Martin, 2014). Albeit there is a time lag between these studies, and that subject option choices at 14, which have subsequently been reduced in many schools, might be said to have forced a certain element of forward thinking, there is a sense here that students from about 13 onwards are increasingly thinking in terms of what they intend to take from their schooling rather than in terms of, for example, working harder when and only when the lessons are perceived as good fun. Furthermore, this forward thinking may be in part prompted by the demands of the system that they begin to make significant choices for themselves. It may be no coincidence that many systems have traditionally marked age 14 as the division between upper secondary education and the phase below it (variously described) and that significant curriculum choice, or tracking, has for some time been common from 14 upwards but not before (Stables, 1996).

On this basis, these tentative suggestions for policy will proceed on the basis of marking age 14 as a possible dividing line between compulsory and post-compulsory education. In so doing, the argument builds on implicit assumptions in current practice. For example, at age 14 in England and Wales, National Curriculum prescription tends to give way to GCSE (General Certificate of Secondary Education) syllabuses, and a compulsory broad curriculum begins to specialise and differentiate. In the UK's private sector, age 13/14 traditionally marks the move to "public" from preparatory school, following taking of the Common Entrance examination.

Redefining of Educational Boundaries: The Case of England

Extrapolating from the above, taken all in all, the following possible scenario emerges. The English context is examined in detail, but the principles are transferable.

First, compulsory schooling should cover the period of a child's life when that child is (i) capable of the self-discipline required to succeed in school, or of learning that discipline, and (ii) not yet principally driven by her own ambitions or frustrated by the limited scope of school. This suggests something like 7–14 years of age. (The arguments for and against compulsion in pre-school or Early Years education are not considered in this paper.) At present, this cuts across a common divide at age 11 in

England, at which point (compulsory) primary school, in which classes are commonly taught all subjects by a single teacher, gives way to (compulsory) secondary school, in which students are commonly taught by a range of subject teachers. There is already some dissatisfaction with this arrangement insofar as the transition from primary to secondary school does nothing to reduce the expanding attainment gaps between more and less advantaged children (Chowdry, Crawford, & Goodman, 2010), while there are longstanding concerns about the overall effectiveness of the early years of secondary education (LGC, 2000). Evidence of the transition at age 11 having consistently positive effects is meanwhile lacking. The justification for this transition seems to be largely historical and pragmatic, in terms of secondary organisation for specialist subject teaching. However, the move from class-based to subject-based learning is not absolute and could be transacted in unified institutions.

In effect, this modest proposal abolishes secondary schools as they are currently configured. Following the lead of the National Curriculum, young people from 7–14 would continue to attend school, though the last part of this process would involve their making choices about what to do next.

The options here can be various, but must retain a degree of protection for young people who are not yet considered legal adults, so are not deemed to have the same powers for rational decision making as those of 18 and over (given that such powers are always relative). Against this, the key principle here is that of appropriate provision for increasingly self-determining persons rather than principally dependent persons. The challenge is to produce the most motivational set of options possible. The following scenario would significantly increase current opportunities for risk taking and learning through preference while providing a safety net by not making choices irreversible. In some cases, it would doubtless result in many young people doing much the same as now, but with an increased sense of personal empowerment and thus motivation.

The headline move would be to reduce the school leaving age to 14: the first advanced country to reverse the recent trend, and a radical reversal at that. At age 14, each young person (not his parents) would be given a 4-year education voucher that could be cashed in at any time. This would leave 14 year-olds with the following options:

(i) Paid employment. To allow young people of this age back into the full time labour force would be another radical move. Their conditions of work would, unlike in the past or in less developed countries, be strongly protected.

(ii) Full time, largely academic, study. Upper secondary and further education (as they are now known) would be undertaken in institutions that provided tuition to GCSE and A (Advanced) Levels, as now, but would be called colleges rather than schools, and would be organised so as to appear significantly different from schools, mot likely with less compulsion in areas outside the chosen curriculum, such as religious education or the wearing of uniform. There would inevitably be some variation in ages of students in year groups, given the freedom to spend the voucher at a chosen point. Such colleges would be of a range of types: comprehensiveness of

provision would be construed in terms of variety rather than conformity, uniformity and standardisation.

(iii) Vocational education and training through apprenticeship schemes, other forms of work based training, college based vocational courses, and mixtures between these.

Note that there would be no fourth option of living off welfare. While 14–18 year olds might be allowed to work, they would not be allowed not to work and not to study. The problem of the NEET (not in education, employment or training) would be resolved through a decrease in prescription rather than its reverse.

The message to young people of such a policy, however unfeasible it may seem under present conditions, would be strong. It would be a dual message of, "We trust you to make the best decisions about what to do with your life" and "We will not support you to do nothing with your life". Through enacting the principle that we learn through the consequences of our preferences, it would empower young people by giving them significant control over their career development at an early age, thus encouraging greater responsibility, it would take no more net resource from the state, it would encourage a culture of work and enterprise and it would provide a degree of equality of opportunity without lapsing into paternalism. In the short term, we can be pretty sure it will not happen, but presenting the model may serve at least as a stimulus to policy thinking. It at least offers a considerable advance on the position that young people who are currently not succeeding must be regulated more and more strongly regardless of their motivations.

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ALICE CASIMIRO LOPES AND ELIZABETH MACEDO

15. SCHOOL REPRESENTATION IN CURRICULUM POLICIES

INTRODUCTION

Education, whether viewed in terms of a research field or as a cultural process, is admittedly a much broader field than just teaching or the institutionalized schooling processes. The history of curricular thought, by contrast, is directly related to the school institution. Research into ways of interpreting school knowledge, organizing content and activities for teaching purposes, thinking about education and producing social identities, identifying the different conflicting processes of signifying the curriculum and, through it, project subjectivities, is – particularly in Western culture – directly related to the idea of creating a social institution named *school*, with all its conflicting goals.

Although there may be research that theorizes curriculum outside of school – the curriculum of museums, for example (Rose, 2006; Vallance, 2004, 2006) – we consider that the curriculum emerges as a signifier intrinsically linked to school. There is a historical dispute in the field between those who seek ways to develop the curriculum in school and those who try to understand how the curriculum is developed in this institution and theorized in the educational field (Pinar et al., 1995). It is through the latter option that we articulate and position ourselves in the field towards the signification of curriculum.

Our research focuses on curriculum policies, understood as attempts to establish meanings – whether through documents produced in the spheres of government and schools, or through theoretical and academic texts. The politically-constituted meanings of curriculum, school, culture and difference have been especially important to us.[1] In this paper, we propose to address the meanings of school, given their effects on the production of discourses in curriculum policies.

Our investigations have led us to conclude that school has been identified in different curriculum policies in existence today as the *locus* of practice. There is a significant consensus in understanding school practice as curriculum *actually* enacted. Such an interpretation involves both the meanings that define school as the redeemer of all social problems, as well as those in which the institution is presented as the place of absence, marked by traditional practices unable to cope with the changes in the contemporary world and by a mobilization of the forms of knowledge supposed to be necessary for that world. In addition, by highlighting the teacher's role in the policies – whether as architect of traditionalism and the one to be blamed

P. Siljander et al. (Eds.), Schools in Transition, 255–269.

for the lack of quality, or as a partner in opposition to that tradition – the idea that the school is the locus of a true experience prevails.

In our opinion, recent curricular policies in Brazil have conceived of the school, and the practices that take place in it, as a place to be pollinated by political discourses, and not as an integral part of the mentioned policy. Since such understanding has serious political consequences with respect to the possibilities of curriculum decision-making, we seek to disseminate in this article meanings that deconstruct the structures of signification and which could underpin the stability of this understanding. We are committed to a policy without determination and, in Derrida's terms, to the opening of radical possibilities *to differ* and *to be*, and that is the reason why we have invested in this deconstruction.

Therefore, we will use Laclau's theory of discourse and Derrida´s deconstructionist contributions, in addition to contemporary works in the field of curriculum, to explain the discursive closures that recent curriculum policies are constructing, particularly in Brazil. By focusing on these policies we aim to evidenciate which will enable us to develop our reasoning; there will, therefore, be no exhaustive study of data nor even a more detailed presentation of these policies. In fact, we do not consider that the investigated process is limited to the Brazilian space-time or even to the possible invention of a Latin American register. This discourse, as with any other discourse, does not irradiate from a center and is not restricted to specific geographical or geopolitical boundaries. Thus, it may prove even more powerful in the setting-up of current curricular policies.

In order to develop the proposed arguments, we will begin with a section in which we explore the notions of policies and representation with which we operate, focusing on displaced and contingent structures. Subsequently, we will focus on some convergences concerning the notion of school representation in policies, using documents signed by the Ministry of Education in Brazil between 2009 and 2012. As discourses, however, those convergences transcend space and time and are part of curricular policies, in different ways, not being confined to any time or to the Brazilian federal level. Our purpose is to identify which meanings of school (in articulation with meanings of curriculum) those discourses seek to establish. The choice to investigate this time-frame more closely reflects our purpose: to attempt to (re)signify the curriculum in its current form. As we point out, such convergences do not form isolated discourses. Meanings may sometimes overlap and reinforce each other in each convergence. The decision to record them separately is due to the need to try and to explore more rigorously the theoretical aspects that allow its deconstruction. Finally, we will address unforeseen possibilities for the signification of school and curriculum.

Policy and Representation

We operate in this article/chapter with the notion of policy in the post-foundational and post-structural register. We define policy as the processes of articulation around

the power to signify, fixing provisional preferred meanings in very specific historical and cultural formations (Hall, 2003). In this process, a number of other possibilities of meaning inscribed in the very practice of assigning meanings as *différance* is excluded. In other words, the proliferation of possible meanings for the eternal differ is stemmed, and it is not possible to imagine this staunchness as derived from any positive or structural determination. The action of signifying/representing is an act of power capable of making equivalent signifiers, whose only relation between themselves is the difference itself.

In trying to understand this process, we have used the theory of discourse as understood by Ernesto Laclau and Chantal Mouffe, in which the notions of dislocation and contingency are interconnected to produce a provisional closing effect, unstable and elusive, subject to dispute in time and space. In Laclau's understanding (1990), political decisions, as fixations, cannot be attributed to a social structure that places the subject at specific positions from which its decisions derive. At the same time, however, the theory of discourse rejects a relativism which abolishes any structuring of social meanings or, at least, any possibility of setting [or creating] meanings. It assumes, distinctly, that "the dimension of antagonism is (...) constitutive of human societies" (Mouffe, 2007, p. 16) and that any aggregation of something we call society, however necessary, is impossible. Thus, it is necessary to build a theory of decision as a way to understand the fixation of meanings within a non-foundational perspective.

In the view of theory of discourse, to theorize about the decision is to understand how certain meanings are hegemonized, or become temporary centers that hold a structure of meanings. In unstructured structure, any meaning could potentially be created, but only some will be through the decisions that create a temporary structure and simultaneously create the subject (always subjectivity) as such. Even if the decision of the subject creates an objective order, it is essentially chaotic, indicating that the decision is still impossible. In other words, we can say that the symbolic order will always continue to be interrupted by the Real (Zizek, 1990). In this interpretation, the Real should not be confused with reality, since it assumes the Lacanian dimension, referring to what cannot be represented, to what has no substance, which belongs to the order of non-sense and as such is inserted in the structure by its resistance to be symbolized, as a gap, a fault, a failure (Lacan, 1994). The Real belongs to the order of the impossible, in the sense that it precedes language, referring to what cannot be included in all articulations that comprise reality (symbolic creations named by language).

The interruption of the symbolic order by the Real thus maintains an eternally dislocated structure of meanings; hence, the work to represent and sustain a hegemonic representation is continuous. This is because the limit of the process of signification is given by this dislocation to which we are subjected when confronted with the non-symbolized, to the time of an impossibility of representation or of any meaning whatsoever: the Real. The dislocation is composed of a space of representation completely heterogeneous in relation to the articulation chain, constructed in other

discursive formations and impossible to predict by the structure (Laclau, 1990). For a simpler picture, we could say that multiple orders are likely to be targeted, whilst not being predicted by the rules derived from the structure. The hegemony of one or some of these orders requires political articulation, since there is no concrete world or set of rational rules that can serve as a criterion to imply what would be the most appropriate representation. This articulation is the very foundation of policies as intersubjective space.

Some representations produced in these political processes are stronger than others; that is, they hide their temporariness and contingency in a most effective way by assuming the empty place of the universal and remain in it for long periods of time. In these representations, the particular character of every representation is practically erased and one has the illusion that it is possible to represent the totality of a phenomenon. These representations operate around empty signifiers and their strength is related to the intensity with which subjects experience feelings of failure and disorder, to the universality and expansion of chains of equivalences it provides.

The curriculum discourses we use here as a pretext to discuss school representation in policies are, as in any discourse, intended to stem the flow of difference, producing the closure of signification. They are not, obviously, able to dominate the field of discursivity, even if founded on very strong hegemonic discourses, such as in the case of Enlightenment. We assume that, when recent curriculum policies disseminate a certain discourse about school, what they do is to raise a given representation, metonymically, to the representation of the whole, beyond specific contexts and contingencies. This is a universal discourse about school, but which cannot be understood as a transparent and objective representation. Like any representation, this also features a supplementary characteristic in relation to language (Laclau, 1993, 2001). Since it refers to what is absent, the representation never fulfills the promise of presenting itself as a full presence. The fact that we operate with representations and that we succumb to this supplementary process means that we are always striving to fill the gap in signification. In this sense, the representation as such can only be feasible because there is a permanent dislocation between representation and represented, signifier and signified.

Thus, the political discourses with which we engage build a set of actions in order to universalize a position, establishing a hegemony, which is distinctive of policies. With Laclau (1990), hegemonized discursive structures that signify us in a certain way, that signify the curriculum, the teacher, the school, do not preclude the dislocation of the structure in order to enable other meanings. As argued by Laclau (1990), hegemony is not the realization of a rationality preceding the hegemonic action, but a radical construction, always contingent. The act of dislocation is not the action of a pre-constituted subject that decides for the dislocation or not, or who operates in language games and a shifting of meanings or not, who intends to translate or not. The subject is the result of the impossibility to form the structure as such; other subjectivities are constituted in the attempt to fill the gaps in the structure. If we are precarious beings, we attempt to achieve self-determination

through different identifications, which are also doomed to fail, when we are faced with taking decision. We can say that, over time, all hegemony fails.

The subjects produced by the decision have their identities transformed to the extent that certain possibilities of being are updated and others are discarded. It is not, however, to assume different identities in different contexts. They are different identities in new contexts, since identity and context are modified in the decision making process. It is from this perspective that the theory of discourse points to a radical contextualization of all identity, of all representation from any policies, as the effect of the contingency of all social objectivity. There is no separation between identities and the conditions of existence of the identities; there are no fully established identities, since they are subject to a contingency. There are no political disputes among identities fully constituted, but disputes among deformed objects defined in specific contexts.

Contexts, in turn, are not spaces with defined borders, existing in the world, but rather discursive constructions in/of the world. They are not objects waiting for the expansion and refinement of our ability to suggest their borders and thus identify them. The production of centers and of political contexts depends on acts of power, and constitutes certain discourses – in this paper, pedagogical ones. Contextual agendas are produced and changed in the actual movement of the policy. Through this interpretation, there are no school contexts to be listed or included in some kind of taxonomy that allows us to typify the schools. Nor it is possible to conceive the possibility of applying a particular political orientation to a context, as an array that has its essence submitted to the complements of the various regions and cultures. Such regions and cultures cannot be listed either as pre-constituted identities.

To submit a policy to a radical contextualization is to assume that if a context is not determinable, it cannot be saturated. All text will always be subject to translation: an unambiguous reading is impossible, it is impossible to refer to a source of the meaning; as all (re)iteration introduces supplements that modify the meanings, which allows context and text to be others (Derrida, 1991). As discussed in Lopes, Cunha and Costa (2013), all rules supposedly able to control the instituting character of curriculum undergo constant changes in the act of being applied (to use the dichotomy to which we are used). The objectivity of policies is neither essential nor rationally mandatory but stems from contextual and contingent decisions.

School Representation in Curriculum Policies: Some Convergences

First of all, some specificities of curriculum centralization in Brazil ought to be highlighted. To the extent that it occurs at different levels – national, state and municipal – and in different instances, the possibility of control is even more diffuse and the negotiations of meaning featuring any policies are yet broadened even further. Only in the last two decades there have been, at least, 6 national guidelines,[2] each accompanied by a set of related documents addressed to the teacher and school. Some states and municipalities organize their own curriculum projects, which

have been interpreted as new documents or as recontextualizations, translations, political hybrids or contextual (re)readings of national proposals.[3] Not to mention the national assessments that have a common core, which often constitute another "national curriculum".

Each proposal refers to different ways of organizing the curriculum and is based on various theoretical assumptions, being produced in the articulations among different social demands (Cunha & Lopes, 2013; Matheus & Lopes, 2014) and multiple containment processes of differing (Macedo, 2011, 2013). Still, the meanings granted to school converge at many times and they are our object of investigation. The convergences that we announce here are not objects mined and identified as the same, but in the way of traces/traits – *la trace*, in Derrida's sense – that lead us to assume that *no element can function as a sign without referring to another element which itself is simply not present.* (...) *There are only, everywhere, differences and traces of traces* (Derrida, 1981, p. 26). We bet, therefore, that the meanings we create by our readings may resonate in texts from other contexts, subject to a translation that allows such convergences.

Convergence 1: School as social redemption and the importance of knowledge

One of the common convergences in most curriculum policies emphasizes the crucial role of school in students' education, which goes beyond educational boundaries. This discourse reaffirms the value of school and, at the same time, gives it a myriad of goals that extrapolate the possibilities of school. Especially in an unequal society like Brazil, this process points to the failure of the institution:

> In other words, it has not been possible, as it should, to build in the country, for all basic education students, a quality school, which could ensure them [the students]: the continuity at school; success in studies; meaningful and relevant knowledge learning; skills development; the adoption of ethical procedures and the acquisition of values necessary for the commitment to a Brazilian society increasingly fair and democratic and to a less unequal and more solidary world, grounded on diversity, solidarity and respect among different social groups and individuals. (Brazil, 2009, p. 8)

The desired school takes a leading role in the fight for social justice, and this is *an essential foundation for the exercise of citizenship in its fullness – and the ability to reach all other rights depends on it* (Brazil, 2010c, Art. 5°). The quality of education, centered on schooling, is conceived as the only vector that is able to jointly promote economic and social development for the full sustainability of the country (Brazil, 2010b). Citizenship as a *promise of sociability* defines the need for the school *to expand part of its duties.* Among these duties, the school is expected to be able to *keep the peace in social relations, in view of the increasingly large and destructive forms of violence* (Brazil, 2009, p. 10). Such examples make explicit that the school is defined as a panacea capable of, or with the duty to, solving all social

problems. It is represented as a condition of citizenship, social justice, reduction of violence, among other things. It is a representation that is certainly repeated in different national contexts. Taubman (2009), when analyzing the North American reality, pointed out that school was expected to solve every social problem – racism, corruption, poverty – as well as prepare "for the labor market, democracy, academic success" (p. 138).

With these demands, society has entrusted school with functions that it is unable to perform. Then, such demands lead teachers to feelings of shame and failure, "for not being able to live up to our ideal of ego and to the ideal image we have of ourselves" (Taubman, 2009, p. 139). In addition, the representation of redemptive school is at odds with the social experiences we live. On the one hand, as thoroughly documented by Ribeiro (2002), the recognition of citizenship and the struggle for social justice stems, in Brazil, in many cases, from social movements initiated by individuals who happen to be unschooled or with little school background. On the other hand, the quality of school is far more influenced by social and citizenship conditions than school is able to influence those conditions (Sahlberg, 2014).

In Brazil, the representation of school as the time-space of social redemption is even more problematic in that the school curriculum is defined as *school experiences that unfold around knowledge* (Brazil, 2010a, p. 18). School, in turn, is seen as

> the only way to access systematized knowledge for certain segments of the population (...) which increases the responsibility of primary education in its function to ensure everybody with the learning of curriculum content that is able to provide the basic tools to more fully participate in the social, economic and cultural development of the country. (Brazil, 2009, p. 45)

In this perspective, the social demands placed on school would be resolved by the domain of a set of knowledge assumed to be stable, either by tradition, by science or by history, disregarding the political struggles for the signification of knowledge that still operate in different school contexts. As the demands placed on school are excessive, the inability to meet them is made explicit, in that this inability is shifted to the individuals, teacher or student. As argued by Macedo (2011), this strategy extinguishes the stories of segregation and prejudice that mark the individual's social experience. The responsibility for exclusion is individualized; it becomes the effect of non-learning [or non-teaching] of basic knowledge or, more specifically, of curriculum content. Besides being responsible for his/her own failure as a citizen, this citizen is still [or will be] the aberration in a quality school. This aberration cannot be eliminated, since there is always the possibility that something is not learned [or taught].

Convergence 2: The school AS the place of absence

The second convergence we highlight here refers to the representation of school as a constitutive outside. This constitutive outside is able to legitimize curriculum intervention towards a redeeming school. In a world marked by changes

(technological, cultural, economic), the actual school is defined as the space-time of traditional practices, *a standardized model developed through the same educational rhythms and settings, similar to industrial processes* (Brazil, 2010a, p. 48). Although presented as part of what exists, the actual school only exists as an error, anachronism, vice, nightmare, which justifies the act of searching for the desired school.

The description of school as a place of absence makes use of different discursive strategies, among which stand out its results in the form of quantitative data. The statistics of various social indicators, such as dropout and repetition rates and centralized exam data, are cited in order to produce a picture of the school that is, in fact, an image of its own problems. The promise is that the use of these different textual elements ensures access to the objective reality of the school and confirms its failure in basic schooling.

> The Basic Education Evaluation System (SAEB, in Portuguese), has shown that Brazilian education, in general, from the point of view of learning, has virtually stagnated since 1999 onwards, at a level far below the desirable. [...]

Table 2 (with Portuguese language and mathematics results in SAEB) shows that the country lags way behind in relation to students' learning with respect to countries of the Organization for Economic Co-operation and Development (OECD). For example, when it comes to Portuguese taught in the 4th grade of elementary school, according to the minimum cut-off scores proposed by the Education For All Movement, Brazil was expected to achieve 200 points or more in the evaluation of SAEB – and not the 176 actually achieved. Moreover, the difference between the desired and the obtained score in SAEB 2007 increases along different school grades. This is particularly evident in mathematics. The difference (Δ) in the 4th grade of primary education is of 32 points; in the 8th grade of elementary school, it is of 53 points; and in 3rd grade of elementary school, this difference reaches 77 points (Brazil, 2010b, p. 4).

As stated by Appadurai (2001), this discourse of statistics, proposed as merely descriptive, is actually performative. When creating classes, it delimits homogeneous bodies and flattens the differences when establishing acceptable distinctions between two classes. Thus, the description of the school for its lack of quality produces that which describes and enables intervention. "Reality" is produced primarily by a discursive strategy that allows, at the same time, to control the difference, approaching it to the already known and thus making it a bizarre example of what needs to be overcome. Hence, different contexts and differences of all kinds – assumed as empirically existent, but subject to an array that unifies them – are homogenized in such a way that a set of homogeneous actions is justified and centrally defined to account for the specificities of the schools.

Convergence 3: The [desired] school, locus of policy application

In view of the current/ school radiography and the redemptive potential of the institution, policies are established a priori that school needs to be *reinvented*

or *recreated:* this is its *challenge* (Brazil, 2010a, p. 10). To a certain extent, this reinvention occurs in a vacuum, as if new practices, new language, new pedagogies were taken-for-granted objects that could be implemented without reference to traditions. It is considered to be possible to replace the signs without reference to previous chains of signs. There is the claim that curriculum proposals are generically able to guide the way to fulfilling this shortage and to achieving the desired school.

> In this context, it becomes necessary to face some obstacles in the school under its responsibility. Among them, it is worth highlighting the schooling and the appreciation of teachers, as well as the construction of curricula appropriate to the reality of our schools and to the needs of all those involved in the educational process. To do so, it is pivotal to develop subsidies for the school and teachers to be able to formulate and develop curricula that are up-to-date, attractive and able to facilitate access to the symbolic goods produced in social life for all. In addition, it is urgent that such curricula promote the formation of a common national base able to welcome the diversity that characterizes the Brazilian society and our schools. (Brazil, 2009, p. 8)

This quote is an example of a number of others specifying school as the place of practice and, as we shall see in the next convergence, the teacher as a practitioner within the limits set by the proposed. School is where the implementation takes place and not the space of policy or of definition of curricular possibilities. Policies take place elsewhere, as an instance of power that is required to guide and define the rules, to present a grounding that is able to contain the possible differences of the curriculum process in school and ensure the supposed homogeneity as a right and mandatory goal. That is, the homogeneity of statistical standards (convergence 2) which wish to ensure knowledge for all (convergence 1). It is up to instances outside the school – government agencies, the University, nongovernmental organizations and even private institutions – to provide the guidelines so that the school can produce the curricular experience.

This distinction between the production and implementation of policy is one of the most prevalent characteristics in educational policies, as highlighted by different authors. Already in the 1990s, Goodson (1995) argued that the dichotomous model, with functional articulations between active and pre-active curriculum dimensions, provided a "curriculum ideology as prescription" (p. 67). For the author, this model maintains control and power in the hands of state bureaucracies, conceiving practice as fully controlled and as the space of liberation – provided this release does not challenge the rhetoric of prescription. Ball, also, in different works (with Bowe & Gold, 1992, 1994; with Maguire & Braun, 2012) – and after proposing that policies are studied from the circularity of meaning around five contexts, among which that of practice – criticizes policy interpretation as documents or guidelines production decoupled from school and, therefore, also decoupled from curriculum practices. He argues that this gap turns out to signify school practice as prescription and the school as a space of experience. Although the analysis model proposed by Ball

maintains a certain linearity and hierarchy between contexts, by defining the context of practice as that of recontextualization of meanings that have their origin in the context of international influence (Lopes & Macedo, 2011), his complaint is relevant to reflections upon the political consequences of the distinction between formulation and implementation of curriculum. The most visible of these consequences is the masking of the dynamics of political process, inducing a vertical understanding of power, and the subsequent disempowerment of the teacher and school space, which will be discussed in the next convergence.

Here it may be important to question, as does Taubman (2009) in relation to national audit culture: how does an interpretation that disempowers the teacher become hegemonized in the educational context? How do many of the teachers themselves adhere to the discourse of national guidelines, desiring an instrument that prescribes what should be taught? First, such instruments, as argued by Taubman (2009), provide teachers with a fantasy of omnipotence, strengthened by success narratives of international experiences. For a teacher experiencing shame and guilt for failing to achieve what is expected from school (convergence 1), this fantasy works as hope of knowing what to do and of having someone to blame. Although this fault socially slips back into implementation, the teacher may at least blame the curriculum imposed for the errors that take place at schools.

According to Taubman (2009), however, it is not only feelings of fear, shame, fantasy, loss and guilt that produce the adherence of teachers to centralized models of policy that disempower them; there is, for the author, a given language of pedagogy itself that provides technical support for such adherence. In the case analyzed by Taubman, it is language-based learning. Regarding the gap highlighted here, the distinction between formal and enacted curriculum; but, more than that, the fantasy of presence that underpins this and other distinctions.

As stated by Scott (1991), in a classic text that discusses experience in realistic epistemology, "seeing is the source of knowledge. Writing is reproduction, transmission – communication of knowledge gained through experience (visual and visceral)" (p. 776). In the curriculum field, the distinctions between written and lived rely on that same distinction. While the mediation of language is obvious in the proposed curriculum, shifting authorship to the point of seeming anonymous, the enacted curriculum in school pretends to keep a direct and natural relationship with the meaning. This distinction sustains, on the one hand, the understanding that it is in the school that curriculum takes place and, on the other, the perception of the primacy of formal curriculum, as it is mediated by language, hovering above practice. What remains obscured in this game is the fact that both regimes are historically and discursively constituted (Macedo, 2011).

Convergence 4: The school as a place of authentic experience of teachers

Even though the gap between policy and implementation is the constituent of curriculum policies in Brazil, the documents expresses a constant concern for the

figure of the teacher and for the school environment as that in which the curriculum is brought to life. Strangely, even in policies taking on a directive and prescriptive tone, the need to ensure the teacher's working autonomy is made explicit:

> (...) curriculum policies are not only limited to proposals and practices as written documents, but include planning processes, experienced and reconstructed in multiple spaces and multiple singularities in the social body of education. (Brazil, 2010a, 19)

> The guidelines are still essential to support education systems, institutions, teachers and managers in the design and implementation of pedagogical proposals (...), so as to suit new requirements developed in order to ensure the realization of children's rights in day care centers, pre-schools and schools. (Brazil, 2009, 15)

The teaching role is always a prominent theme in Brazilian curriculum policies, as it is in pedagogical thinking. There are references, not always explicit, nor referring to Freire's thought only, but to the whole Marxist tradition with its criticism of alienated labor. Also the progressivist literature, important rhetoric in the first half of the last century, and the discussion of the reflective teacher are references which, though fragmentary, justify this emphasis. The forms in which such a leading role is represented bring about the boundary of the already mentioned gap. The teacher is not the producer of policies, but rather the one who *reframes the knowledge of reference disciplines, and does so because this knowledge relates to everyday knowledge, to experience* (Brazil, 2009, p. 66).

In this sense, the teacher is sometimes described as a partner of policies, the very center of educational transformation, and other times as the hurdle to that transformation. The representation of this obstacle is usually associated, by curricular documents, to poor schooling, with much less frequent mention to working conditions and salary. Although not explicit, the idea that the teacher can also be a subversive agent also circulates in the spaces of policy making. In this sense, the failure to implement policies is transformed, romantically, into a teacher's strength as he or she is seen as capable of producing alternatives to what is imposed, in a kind of bottom-up model.

With such obstacles, policies seek to strengthen the partnership through different strategies. In addition to macro discourses that instill in the teacher feelings of fear and blame for the failure and the technical support given by educational theory, there are other discursive strategies widely used by curriculum documents to approach the teacher. As stated by Ball (1994), with reference to Barthes, readerly texts are much more engaging to the reader than the writerly ones, which is why no curriculum can be fully prescriptive – otherwise it would not be read. Hence, documents are quite detailed, but remain constant references to new meanings to be produced by teachers, inviting them to participate [which will in sequence feed the feeling of fear and guilt]. In addition to these references, the strategy of simulating alleged

classroom situations, describing, by way of example, "the reality" of the school is also used to bring the teacher closer to the formal curricula. Both strategies are especially present in documents that support the work of teachers.

Thus, if practice is the place of error, it is also the place where authentic school experience lies and that which needs to be recovered – as resistance or as a starting point for curriculum implementation. As stated by Scott (1991), the "authority of experience" enables the "claim for legitimacy" (p. 776) within an epistemology in which the notions of observing and experiencing are at the source of knowledge. As with the use of quantitative data, experience arises here also as actual data, as something that people have. The discursive and subjective processes by which experiences are produced are eclipsed and, therefore, partnership and resistance are located "outside the discursive construction and [thus] the agency is reified as an inherent attribute of individuals, however decontextualized" (p. 777).

Closing Words

This article strives to question the objectivity/identity that curriculum policy tries to place on schools. If, on the one hand, to project identities and to try to build social meanings, curbing the differ regarding language is proper to policy and to the need to communicate, to assume that these identities are fixed and stable entities is the death of the policy itself. To operate with identification processes as a constant *come to be*, as submitted to contextual disputes, seeing that they are contingent, is a bet on the democratic character of policies, in the possibility of keeping the place of the universal tempty, because in dispute, without the supposition that an act of power could establish once and for all the erasure of other meanings.

In assuming this perspective, we are not positioning ourselves in an anomie or in political nihilism, accepting the absence of projects for schooling, or even some attempt to hegemonize and constitute pedagogical discourses. We are committed to the absence of fixed rules or of guarantees, and to the consequent criticism of prescriptions that attempt to impose rationality as constitutive of the best representation of the school. Or even that attempt to impose a picture of school as an expression of a reality that is supposed to be contained in descriptions and normativities. Any project for the school and the curriculum, in this approach, is designed in the dimension of radical contingency, in the absence of certainty, it is submitted to a political game [of language].

In view of this political perspective, we argue that to the extent that curriculum policy tends to be constructed as a production dissociated from school, and, therefore, from curriculum practices, policy is meant as a place of prescription for school practice and contributes to the significance of the school as a space of experience. Operating with the curriculum policy in a discursive perspective, tuned with no separation between proposal and practice, between formal and enacted curriculum – that is, in our reasoning, the way to disseminate other meanings in policies, and contribute to the overall deconstruction of this discourse.

From the beginning and throughout our research trajectory, we worked towards the direction supported by Ball, conceiving the context of practice as that in which the action of the subject appears more centrally. As per the definition of the authors (Ball, Bowe, & Gold, 1992, p. 21), the context of practice is the place in which the "real consequences" of political texts are experienced. Such texts, although with a representational history, do not penetrate the institutional (and social) empty space. They are read in schools from the stories, experiences, values and purposes of the subjects who constitute them. This leads us to the conclusion that, although the political texts restrict the scope of possible actions, creative social action is always possible. The context of practice is productive, despite the constraints established by the restructured power relations, redistributed and recreated by the policies.

With the choice of post-foundational and post-structural perspectives with Laclau and Derrida, we deepen the appreciation for unforeseen possibilities for the signification of terms like school and curriculum, for the contextualization of the whole policy and for the affirmation of the heterogeneity of the social. To write and circulate curricular texts – documents, standards, proposals, books and even academic papers such as this – is an attempt to control meanings and make discourses. Each of these texts also often attempt to say how the curriculum and the school should be. However, it seems to be more productive to distance ourselves from this prescription knowing that we just circulate signifiers that will be read in different and unforeseen ways. However strong the directions of discursive registers, there are always possibilities to escape towards routes of different signification.

From this perspective, to invest more and more in the attempt to control what cannot be controlled, to organize ways of homogenizing identities, does not seem the most productive way of making policies. To incorporate the dimension of the failure of reading of any political text to policy, and its project of setting meanings, may be a more pluralist and heterogeneous bet. The political text only disseminates meanings if it is read and, when read in a Derridarian way, it is translated and fails in the attempt to impose a single reading. This failure is its strength and it is also the chance to escape its confinements.

Identifications of school, curriculum and education guide our understanding of the world. Nevertheless, the identification and reference points are due to acts of power that slow down the significance and the free flow of meaning. To theorize them as discursive is what promotes, in our view, deconstructive events, favoring identities to be recreated and translated in unforeseen and different ways.

NOTES

[1] Refer to the website in the research line of Curriculum: actors, knowledge and culture of the Graduate Program in Education of the State University of Rio de Janeiro www.curriculo-uerj.pro.br

[2] National curriculum guidelines for primary education in 1997; national curriculum guidelines for primary education in 1998; parameters and national curriculum guidelines for high school in 1998; national curriculum guidelines in 2006; national curriculum guidelines for Basic Education in 2010;

and national curriculum guidelines to high school in 2011. It is currently under discussion to define common national curriculum bases, in a process involving different public and private political actors (Ball, 2012; Macedo, 2013).

[3] See, for example, the work of Barreto & Lopes (2010); Cunha & Lopes (2013); Frangella & Barreiros (2007); Lima and Lopes (2010); Matheus & Lopes (2011, 2014); Oliveira (2012); Tura (2011).

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SECTION V

SCHOOL, UTOPIAS AND FUTURE

In addition to the criticism based on the current state of schools, seen in previous chapters of this book - a more radical and utopian criticism of schooling has increasingly made itself felt. The most famous proponent of this criticism is Ivan Illich. In his *Deschooling Society* (1971) his stated central aim was to get rid of schools and schooling altogether. He imagined a utopian society with no schools at all. A similar, more or less radical, discussion has been quite popular since the invention of modern schooling, from Rousseau via Dewey to McLuhan to Pink Floyd (see Friesen in this book).

Authors in this book agree that, in spite of its problems, school is a necessary part of modern society and that it is impossible, or at least quixotic, to imagine modern society without some form of school or schooling. This last section of the book attempts to map the limits of utopian school criticism. A natural approach is to study the history of schooling in order to find out whether it is simply a contingent side effect of modernization and industrialization - a historical relic. The methods and traditions of historical research and the availability of historical documents impose certain limits on longitudinal studies like these. It has often been a habit to start reviews from (European) antiquity or draw speculative conclusions about pre-historical education from the anthropological studies of so-called primitive peoples. Fortunately, there exists a rich but rarely utilized historical material from as far back as 4000 years ago in ancient Mesopotamia which clearly shows that in spite of the great changes in societal contexts and very probably in pedagogical thinking, the pragmatic instructional configurations have remained surprisingly similar through the millennia. Similarities prevail in the areas of transfer or production of symbolic competences, i.e. writing, mathematics etc. which as Friesen in his chapter concludes are inevitably central for being a human being. This finding suggests that whatever may change in schooling, the artificial, boring, repetitive, individual and teacher organized learning work of pupil will remain in one form or another.

If the work of teachers and pupils will remain essentially unchanged, what, then, could or should be changed? One basic idea behind radical school criticism has been that the normal form of study work in school is de-motivating and that causes alienation and under-achievement. Critics state that learning should be autonomous, authentic and voluntary. But if the learned competences consist of those symbolic skills which are often useless when they are learned and become useful and even understandable only much later, then it follows that learning cannot be immediately and internally rewarding. It remains the teachers' duty to motivate pupils' work by their authority, persuasion, provocation and other manipulative techniques. When

this does not work, then schools may resort to coercion, forcing students to work. In effect, modern legislation makes the school work of children of a certain age forced labor. Sidorking addresses this very issue in his chapter and builds a provocative argument that children should be emancipated from this last legal form of forced labor. He does not justify this claim only, or even mainly, by invoking the rights of children but rather by the rise of economic efficacy which this innovation would bring forth. In this utopia schools would exist but the school work would be as voluntary and properly paid as any work. This should solve the motivation problems of learning. Of course there are problems in this plan and some alternatives in how it could be – no doubt gradually - approached. This is one direction, in any case, which deserves serious deliberation, in addition to other, less radical innovations.

NORM FRIESEN

16. THE HISTORY OF EDUCATION AS THE HISTORY OF WRITING

A Look from the Past to the Future

> The history of education is the history of writing.
>
> (Hoskin, 1993, p. 27)

Educational institutions are said to be in crisis, to be outmoded, failing, unsustainable. There are plenty of experts and commentators who envision the end of the classroom, of the instructor and also of the school itself. Why? The reasons, like those advancing them, come from many quarters: The argument that "schools kill creativity" for example, can be traced back at least to the 18th century, and has been recently revived by Sir Ken Robinson (2012). The case that "learning is not the result of instruction," but "rather the result of unhampered participation in a meaningful setting" is found in Ivan Illich's 1971 *Deschooling Society* (p. 44). Learning, as Illich and others argue, is situated, and should occur in situations where the child is related directly or indexically to what he or she is to learn (e.g., see: Brown, Collins, & Duguid, 1989, pp. 33–34). Still others speak of the political and social obsolescence of school and formal education. They see the task of education as a naively optimistic enlightenment project in a disenchanted, post-industrial, postmodern era. These sentiments capture a key point shared by progressive, collaborative and constructivist approaches to education and learning: that learning in the classroom is the opposite of what it can and should be. Instead of being boring, difficult, artificial and individual, learning should be fun, natural, authentic and social.

Arguments have also been made from the perspective of science and technology. Given ongoing advances in media technology and neuroscience, the school or university increasingly appears as a "reactionary" or even "feudal" institution, as media theorist Marshall McLuhan remarked over half a century ago. McLuhan argued further:

> The sheer quantity of information conveyed by press-magazines-film-TV-radio far exceeds the quantity of information conveyed by school instruction and texts. This challenge has destroyed the monopoly of the book as a teaching aid and cracked the very walls of the classroom. (1960, p. 1)

There is something compelling about cracked and broken classroom walls, about the destruction of the monopoly of books, pencils and teachers. It is little wonder that

P. Siljander et al. (Eds.), Schools in Transition, 273–287.

these images are also mirrored not only in the arguments of critics and reformers but also in pop culture (e.g., Pink Floyd's "We don't want no education"). In an age of social media, twitch speed and Twitter, it is not difficult to portray the classroom and blackboard as unnatural, unmodern, unexciting and uninspiring. These old mainstays are all readily seen as outmoded and obsolete – particularly for new generations of "digital native" students. Most of the hallmarks of this "digital generation" (Prensky, 2001) – like the iPhone, PlayStation or Facebook – have no meaningful place in school, and their use in the classroom and lecture hall is a question of tight control or, at least, of much hand-wringing among teachers. These educational environments remain all but media technology-free zones, it appears.

Although critiques and observations of this kind are important, even urgent, they are certainly not *new*. As the examples of McLuhan and Illich show, they've been repeated for decades. But they actually go back for centuries, if not millennia. 250 years ago, Jean-Jacques Rousseau roundly condemned books and formal schooling as utterly unsuitable for children:

> When I thus get rid of children's lessons, I get rid of the chief cause of their sorrows, namely their books. Reading is the curse of childhood, yet it is almost the only occupation you can find for children… I hate books; they only teach us to talk about things we know nothing about. (1979, p. 184)

Rousseau saw children as products of nature; and he considered the rustic simplicity of the countryside to be far superior to desks and libraries. About 125 years later, at the turn of the 19th century, John Dewey made similar arguments. His concern, however, was not exclusively about the return of the child to nature; he also wanted to take advantage of the communicative potential of new technologies like "the radio, the railway, telephone, [and] telegraph:"

> The significance attaching to reading and writing, as primary and fundamental instruments of culture, has shrunk proportionately as the immanent intellectual life of society has quickened and multiplied. The result is that these studies lose their motive and motor force. They have become mechanical and formal, and out of relation – when made dominant – to the rest of life. (1897, p. 317; 1929, p. 2)

Technologies for transport and transmission, Dewey implies, form nothing less than the "primary and fundamental instruments of culture;" and the radio, telephone and telegraph have allowed us to shrink enormous distances and to reach vast audiences instantaneously. This unprecedented change, Dewey concludes, "demands a corresponding educational readjustment." Like Rousseau before, and like Illich or McLuhan later, Dewey wanted change that would free students from their desks and textbooks. Like Illich, Dewey saw "the only true education" as one that happened in "social situations in which he [the child] finds himself" (1897/1998, p. 229) – situations which often have little to do with lessons, books and exercises. As a result, it's almost certain that all of these educational critics would be very disappointed

by today's classrooms, schools and even universities. They would probably balk at their continued isolation from "the rest of life" and their emphasis on that "curse of childhood" – texts and lessons, reading and writing.

These centuries of harsh critique and pleas for reform raise a number of questions about education, and in particular, the school: Why, in an era of digital media – to say nothing of radio, telephone and telegraph – is the school apparently so little changed? Doesn't postmodern "incredulity towards metanarratives" render the educational story of progressive universal enlightenment obsolete? Does the obstinate persistence of the school exemplify resilience or of obsolescence? Expert responses all too often come down on the side of the obsolescence of the school, seeing it as an enlightenment- or industrial-age antique, about to go the way of the writing quill and steam engine.

Using textual media as its central reference point, this chapter works to reverse this view. It takes its cue from a conclusion of one historical expert, namely, that "the history of education is the history of writing." This chapter looks at the instructional pragmatics underlying this claim by presenting an example of reading and writing instruction and practice based on extensive but little discussed historical records available from the ancient Middle East. The parallels between this evidence and present-day educational priorities and practices strongly underscore the role of structured learning and instruction in the transmission of what might be called "symbolic competencies" – and with them, a cultural inheritance – from one generation to the next. The chapter then argues that a combination of cultural, technological and human limitations and possibilities illustrated by this evidence means that the school is likely to retain its socio-economic relevance – at least as long what it is to be "human" is itself is framed by these potentialities and constraints.

Before embarking on these arguments, however, it is necessary to briefly discuss the historiography underpinning this chapter, and how it differs from other historical efforts.

Method: Materiality and Cultural Techniques

Histories of educational theories, forms and practices have traditionally focused on canonical texts, often beginning with those of Hellenic Greece. Looking at current textbook histories such as Murphy's (2005) *History and Philosophy of Education* or Gutek's (2010) *Historical and Philosophical Foundations of Education,* one might be forgiven for thinking that educational theory and practice began with the Spartans, the Socratic dialogue, or with the works of Cicero and Quintilian. That these ancient contributions represent a kind of the historical vanishing point for educational forms and conceptions is evident in ongoing discussion on Greek or Latin terms such as *paideia, skhole or currere* (e.g., Masschelein & Simons, 2013; Pinar, 2004). However, in recent decades, scholars have shown how many important educational forms and practices such as the child's catechism and the university curriculum emerged largely *sui generis* in early modern Europe (e.g., see Strauss, 1978; Hamilton, 1989). In addition,

still other avenues for investigation of educational histories have been opened up in recent years. Of interest here are those that emphasize the achievements of non-western cultures, and their potential contribution to (or prefiguration of) education in the global West. Examples are provided by Hirschler (2012), who covers early medieval *Islamic* educational practices. T.H.C. Lee's extensive *Education in Traditional China: A History* (2000) as well as and Draslin's rather early study of *The History of Jewish Education* (1940) offer further examples. On the whole, however, accounts of the origin and subsequent development of educational theory and practice in these and other non-Christian cultures are relatively few and far between.

In looking to the ancient Middle East, this chapter attempts to address this lacuna, and to trace basic educational practices through trajectories *other* than those associated with the West or with Abrahamic monotheisms (chronologically: Judaism, Christianity and Islam). However, to undertake such a study effectively and self-reflectively, it is necessary to engage in a number of shifts in historical and methodological focus, and to avoid the habits common to histories of ideas or etymological analyses. Instead of a history of ideas or ideals related to education, this chapter presents an investigation of physical evidence, and of the broadly instructional techniques and practices to which these artefacts bear witness. In this context, it is first necessary to assiduously avoid the historical use of culturally freighted terms like "pedagogy," "curriculum" and "school." The point is not to investigate evidence that is part of the received practical and intellectual tradition, but rather to investigate artefacts that arose and existed independently of it. The practices that we regard today as part of a commonplace educational reality, in which schooling is compulsory, structured and institutionally-supported were almost certainly understood differently in other contexts. In early Judaic or Christian teaching practice, for example, terms like "yeshiva" or "monastery," "rabbi," "monks" or "scribes" would have been used to name only rather vague analogues of what we today know as schools, teachers and students. To simply use more generic and familiar present-day terms to label these places and roles would be inaccurate and misleading; it would be to engage in the historical error of "presentism" or "anachronism." This refers simply to the reflexive introduction of present day labels, ideas and perspectives in understanding the past, and can be seen as particularly problematic when the cultures in question are very distant in both place and time.

The task then, then, is not to examine how school, pedagogy or curricula were configured in ancient discourses, or to presume that they even existed in ancient contexts as we understand them today. It is instead to investigate the ways in which the practices and techniques that we still associate with education and schooling – particularly in its most basal forms – have been manifest in quite different times and places, in particular, one that is especially "remote" from conventional educational histories. As the title and epigram for this chapter suggest, these practical and

material commonalities revolve around writing and the use of written symbols. They include phenomena such as frontal instruction, forms of dictation and recitation, and a planned sequence of practices or exercises, as well as special materials adapted to suit such an instructional sequence. In sum, one can characterize the task of this chapter as an attempt to address the question: "How were the techniques involved in tasks of reading, writing and mathematics reproduced from one generation to the next in a society clearly outside of Western influence?"

Such techniques and the materials used to practice them (today, pen, paper, screen and keyboard) are inextricably associated with "culture" in the broadest sense of the word: Namely, the shaping of nature for human ends. Culture in this sense is closer to its meaning in the terms "agriculture" or "horticulture" than it is to "counterculture" or "subculture." It refers not so much to the beliefs, habits and lifestyle of a particular (sub-)group, but rather to what Merriam-Webster describes as "the integrated pattern of human knowledge, belief, and behavior that depends upon the capacity for learning and transmitting knowledge to succeeding generations." Material artifacts and embodied enactments are an integral part of the "patterns of human knowledge, belief and behaviour" named in this definition. And it is in this sense that these technologies and techniques can be identified as "cultural" and can be studied specifically in terms of what are called "cultural techniques." Particularly in the context of this paper, this phrase refers not only to symbolic skills and techniques, but also to the materials used to learn and practice them. In addition, the practice and reproduction of cultural techniques involves practical and embodied knowledge, rather than knowledge that is strictly theoretical or propositional. It is these aspects of cultural techniques that are highlighted in the following definition, frequently cited in this fledgling sub-field or discourse:

> Cultural techniques are (1) operative processes dealing with things and symbols which are based on (2) a dissociation of the implicit "knowledge how" from the explicit "knowledge that." Thus, they can (3) be understood as bodily habitualized and routinized competencies which have their effects in everyday dynamic practices, but at the same time (4) can function as an aesthetic, material-technological basis for scientific innovations and new theoretical devices. (Krämer & Bredekamp, 2003, p. 18; as translated in Gentikow, 2007, n.p.)

Cultural techniques in this sense deal with the formulation, combination and manipulation of symbols and thus also with the meanings that they produce. This type of work embodies implicit knowledge of "how," knowledge (e.g., how to write notes) that is quickly relegated to the tacit, habitualized and routinized background for working with more explicit "knowledge that" (e.g., the points being noted down). Cultural techniques needn't even be explicitly material in nature; there is a wide range of symbolic practices, from mnemonic techniques (e.g. knowing a multiplication table or a physics formula) to presentations, questions and answers

in class that are of clear cultural and pedagogical significance, but that can be challenging to understand exclusively in terms of inscription and physicality. Because cultural techniques function as the material-technological prerequisite for scientific discovery and new theoretical tools, mastery of ever more complex forms and combinations of these techniques are at the core of educational efforts and practices, from primary to tertiary levels.

An examination of material culture and its techniques leads not only to different conclusions about what education is, but it can also produces different *types* of conclusions. The conclusions of etymology lead us back to texts, seeing how meanings may mutate, multiply and perhaps also perish over centuries. The conclusions proceeding from material evidence, on the other hand, leads to questions about the creation and use of such artifacts and associated practices. An examination of physical evidence leads to questions of what was physically possible and necessary, particularly in terms of materials and their human creators. In the investigation undertaken here, these include readily available clay, hand held inscriptive tools, fine motor skills to deploy them, even enclosed spaces for undertaking inscriptive practice. These possibilities and necessities also involve slightly less tangible forms; for example, those concerning human memory and social organization, such as the existence of a division of labor and possibilities of childhood "leisure," as well as the nature of the language as well as the physical nature of its written symbols. As just a simple example of the last of these factors, it is instructive to note that learning the Korean alphabet, which is phonetic and incorporates mnemonic cues for related sounds, can occur in an afternoon (Gnanasdesikan, 2009, pp. 191–207), whereas learning hundreds of characters of a complex syllabary (a common form in ancient writing) would have taken much longer, and possibly involved the use of a wide range of *additional* mnemonic techniques and devices. Ultimately, by addressing concerns such as these, the researcher can work to delimit, however tentatively and cautiously, the historical boundaries of what can be called "culture" and even more tentatively, "the human."

Symbolic Cultural Techniques ca. 2000 B.C.E.

The particular context that I investigate in terms of its material practices or cultural techniques is one that developed in the Fertile Crescent, over thousands of years, from the third to the last millennium before the Common Era, in ancient Sumer or Mesopotamia. Over this vast history, the period that is most richly documented, and thus my focus here, is from about 2500 to 2000 BCE. Indeed, this period –when compared to any other in the history of education – has been described as the *best* documented. Christine Proust, one of the few researchers of education to investigate these materials and practices explains: "No other educational system of the past is as well documented as that of Mesopotamia." Despite anachronistic references to "curricula" and "education," Proust continues helpfully by explaining that

> it is mainly the production of students that has been preserved [in the form of] clay tablets written …during the first stage of their education (or 'elementary level'). …These tablets were discovered in many archaeological sites, over a large geographical area, including present-day Iraq, Iran, and Syria. On these tablets, young scribes wrote out exercises for learning cuneiform writing, Sumerian vocabulary and grammar, numbers, measures, and calculations. (2011, p. 162)

These tablets were inscribed with a blunt reed, *calame* or stylus, creating triangular or *cuni* (Latin for triangle) forms in the hardening clay. The writing system constructed from these forms consisted of about 500 symbols in total. It is among the earliest (if not the first) functionally differentiated writing system in human history. In other words, it is not simply for religious texts or commerce, but for a range of social functions. This form of inscription was used largely for accounting, trade, and legal and administrative purposes, which represented specializations central to Sumerian society. It also was associated with a substantial written cultural heritage. The Code of Hammurabi, an extensive set of laws, was written and disseminated in cuneiform, as was the Epic of Gilgamesh, one of the earliest recorded poetic sagas. It is from this documentation – both of student exercises and early "poetic" writing – that it is possible to reconstruct in some detail the educational characteristics of "cuneiform culture" that flourished millennia ago.

As the name suggests, the ancient civilizations of the Fertile Crescent were based on agriculture. The cultural techniques now referred to as cultivation, irrigation and animal husbandry were central, accompanied by a wide range of other productive practices, from weaving through copper-smithing to masonry. As in many other eras and societies, learning these practices or trades did not require any explicit schooling or formal education. As the studies of Lave, Wenger (1991) and others (e.g., Rogoff & Lave, 1984) also confirm, what we today might call "trades" were learned in ancient Sumer through apprenticeship or "on the job training;" through observation and participation, with such "workplace" learning starting at a relatively young age.

However, to learn inscriptive and symbolic abilities, some children (mostly boys) were sequestered for years from the realm of productive labor – obviously at some cost to Sumerian society.[1] They were sent by their parents to a special place: A location where they were joined by others also writing to become scribes, and where they were overseen by one or more scribal masters. Moreover, these were places in which writing material (clay), implements for inscription and examples (collections of texts and lists) were all available in quantity. In some cases, the walls of these rooms were covered with cuneiform tablets, which were also used as building materials. In fact, these places were often known in Sumerian as *edubba* or "tablet houses," and students were at times called their "sons."

Here is an early description of such a tablet house, made by one of their first discoverers, archaeologist Hermann Hilprecht in 1903:

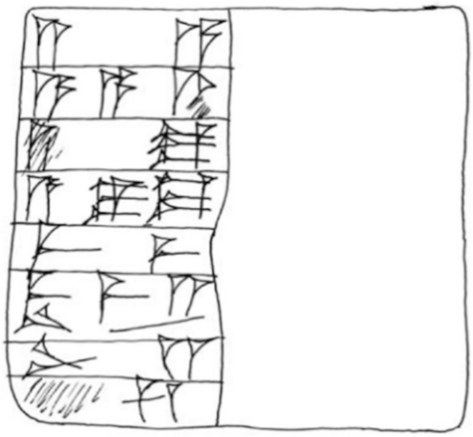

Figure 1. Teacher's model with the beginning of a traditional list of signs and sign combinations, to be copied to the right by a pupil… Large signs enable the pupil to exercise minutely every detail of the sign. (8 × 9 cm; Veldhuis 1997; used with permission)

> The character of the northeast wing as a combined library and school was determined immediately after an examination of the contents of the unearthed tablets and fragments. There is [such] a large number of rudely fashioned specimens inscribed in such a naive and clumsy manner with old-Babylonian characters, that it seems impossible to regard them as anything else but the first awkward attempts at writing by unskilled hands,–so-called school exercises. Those who attended a class … [received] instruction not only in inscribing and reading cuneiform tablets, but also in shaping them properly, for not a few of the round and rectangular tablets were uninscribed. (1903, pp. 524–525)

Like Proust's, Hilprecht's use of terms like "school" or education system is clearly anachronistic, indicating a presentist projection of contemporary commonplaces onto otherwise alien historical data. Despite this fact, the physicality of "the first awkward attempts at writing by unskilled hands" combined with the sheer number of surviving tablets recording these practices has led many researchers to confirm Hilprecht's initial deductions concerning instruction, reading and inscription: he had uncovered evidence of work that is part of a formalized sequence of instruction, and that bears material similarity to the first printing exercises of school children.

More extensive sequences of instruction – what we today would refer to as a "curriculum"– are also quite well documented. Speaking of what is known among archaeologists as the "Nippur Curriculum," Eleanor Robson explains:

> In the first phase students concentrated on learning how to write the basic wedges that comprise cuneiform script… a vertical, horizontal, and diagonal wedge… repeated; the sign A repeated; the list of Akkadian symbols now called Syllabary A… a similar text known as Syllabary B … [and finally,] a list of deities. (2011, p. 563)

Instructional work, as this account suggests, began with methods of refining motor skills needed for accurate, legible inscription. These physical exercises, as Robson explains, were followed by composing and copying individual and rhyming groups of syllables and words and names. In some cases, the "teacher" would render the letter forms on the tablet for the young student to copy, as illustrated in Figure 2 (Veldhuis, 1997, pp. 41–42). Among the next steps in the program of writing instruction, one which was standardized across a number of Sumerian centers (Tinney, 1998), were the inscription of words of greater complexity, including

> Short or long extracts from …exercises …written out on large, square, multicolumn tablets, often combined with brief passages from ad hoc and "non-canonical" lists – for instance metrology [weights and measures], personal names, place names, professional designations, lexical lists –and/or literary works, proverbs, and administrative formulae… In the second phase long, single-column tablets were preferred… Students continued to copy syllabaries… plus short excerpts from incantations, hymns, literary works, and more complex lexical lists, with up to four different compositions on a single tablet. (Robson, 2011, p. 563)

Figure 2. Multiplication Clay multiplication table inscribed with cuneiform. Babylonia (Iraq), 2nd millennium BCE

One technique used to facilitate these more advanced writing exercises appears to have been *recitation* or dictation. The practice of pronouncing words aloud, to then have learners reproduce them in written form, has been commonplace in Western and other instructional traditions for centuries (Hoetker & Ahlbrand, 1969; Hirschler, 2013). Evidence of this in ancient Sumer takes the form of tablets that are otherwise identical except for varying spellings of homophones (Tinney, 1998, p. 49). This further implies a kind of "frontal instruction," a familiar instructional scenario in which a leader will face those facing and lead them in a common activity.

Another artifact of elementary instructional practice from ancient Mesopotamia is provided in Figure 2. It is a multiplication list or table about half the size the previous example, using the Sumerian base-60 numerical system containing an obvious error in calculation. Viewed as a scribal exercise, it illustrates a clear shift in instructional emphasis from rudimentary motor skills to much finer work, and more abstract cognitive abilities. Correspondingly, the task here is one of mathematical reasoning and a (partially mnemonic) knowledge of mathematical relations.[2] The calculations run the equivalent of 40 × 1 to 40 × 19, with the one error translatable as 40 × 14 = 550 (Israel Museum, 2012, n.p.).

Although the historical contexts for these practices could not be more different, it is impossible to ignore the remarkable similarities linking the material artifacts and practices of Sumerian instruction with modern, Western schooling in handwriting and elementary mathematics. Instruction in writing or printing in modern English-language schools (or what is called "manuscript") begins with the drawing of signs and elements, lines, circles and curved marks (one contemporary commercial product for teaching handwriting is called "Loops and Other Groups"). Teachers may begin "first of all [with uppercase] letters using straight lines (e.g., L, T, H), then letters using curved lines (e.g., C, O, U), and finally those using oblique lines (e.g., K, N, M)" (Asher, 2006, p. 466). Lower case letters soon follow, with careful attention to the types of shapes combined in these characters. Like their Sumerian forebears some 40 centuries earlier, children learning writing today are introduced to variations on individual characters, using special wide-ruled paper to develop finer motor skills. In this context, "lists of signs" and "names" have also long been important, as one classic manual on *Handwriting Instruction in Elementary Schools* explains:

> Early [student] writing may be centered about instances as the following[:]
>
> 1. Their names
> 2. Telephone numbers, dates
> 3. Labels and captions for charts and pictures
> 4. Calendars
> 5. Records, such as temperature charts or records.
>
> As the children develop in handwriting skill, the teacher enlarges his role to facilitate further growth in helping pupils write their own announcements, notices to be sent home, or simple stories. (Burns, 1968, p. 21)

The one clear difference in modern day writing instruction, however, is the introduction of the student's own purposes and compositions as soon and as frequently possible in writing exercises. While Proust notes "the emergence of an ideology that legitimates the schools and the stratum of erudite scribes in the Sumerian context" (2011, p. 161), in the culture of today's schools, students are cast neither as scribes nor copyists, but as authors of independent creations. However, from the standpoint of the pragmatics of technique and materials of instruction, the parallels between today's writing instruction and those in ancient Sumer are surely more striking than the differences.

Implications & Conclusions

Taken together, the circumstances of Sumerian scribal instruction provide a rather different historical example than the writings and terminologies of the ancient Greeks and Roman. This example is one that is not conceptual, etymological or hermeneutic in nature. It does not seek after meanings and their changes. It is instead material, evidentiary and inferential, working from available artifacts and socio-technical possibilities and probabilities toward deductions and conclusions about concrete practice. As mentioned above, the Sumerian example relates *not* to debates regarding curriculum as a concept of pedagogical responsibility or the school as a modern (rather than post-modern) institution, but to the material pragmatics of inscriptive practice. Also unlike the Greek and Roman examples, the writing systems and practices of the Fertile Crescent are not derivative of earlier forms (e.g., Phoenician or Mycenaean), but arose *sui generis.* The remarkable yet largely unexplored example of instructional artefacts from cuneiform culture, with their mixture of the alien and the familiar, suggest a wide variety of implications for formal instruction and its contexts.

For example, the multiplication table (Figure 2) implies a level of abstract cognitive effort and coordination (to say nothing intricate orthographic control) that is worth considering at some length: First, the table evidently has no situated task or "real-life" context as an explicit point of reference. The value of "40," or of the statement that 40 × 14 = 560 derives precisely from its abstract independence from any one instance of 40 (40 × 14) things. It is valuable precisely because of its hypothetical relevance to the widest range of instances of that which is heterogeneous, homogenous, manifold or multiple. In addition, the many symbols on the two sides of the tablet together can be said to represent a kind of two-dimensional field in which the shape of the symbol in each position is determined not only through linear sequence, but also in relationship to those below and above. One could go so far as to say that the symbols inscribed in the table form an intricately structured symbolic matrix or semiotic network, in which the value of any one symbol is justified in terms of all of the others. Knowledge, or the values and interrelationships of each symbol are thus *not* situated indexically, in relation to a context of an immediate situation or need, but in relation to other symbols and values arranged on the same tablet, whose

significance is rather precisely determined, but at the same time, remains rather arbitrary. As a result, as is the case today, the value of multiplication "products" must be committed to memory and presumably also, rehearsed in writing, with varying degrees of effectiveness or accuracy, as the example also illustrates.

Of course, what justifies exercises at any one stage in acquiring mathematical and other symbolic competencies – whether it is in inscribing lines, triangular forms, or complex, multidimensional networks of symbols – is that these isolated skills are prerequisites to more complex tasks – tasks that often have clearer extrinsic value. The acquisition of knowledge and ability in many if not all of these stages is legitimated in terms of the nature of later stages, extending from the rendition of individual characters or words through multiplication tables to other highly structured forms and compositions, for example, epic poetry or astronomical data. The presence of fixed and relatively standardized sequences of practices, furthermore, also implies the existence of didactics or instruction as a specialized knowledge. This can be further said to represent a second form of tacit, habituated knowledge that would be particular to a single social role or function (e.g., a scribal master).

This sequencing of symbolic tasks and competencies can be further understood in terms particular to cultural techniques. In preparation for the production of the multiplication table, sets of relevant cultural techniques, from the inscription of character forms to the reproduction and manipulation of symbols, must first be gradually acquired, and subsequently, fade into the background to allow for the acquisition of further competencies and abilities. The multiplication table, for example, presupposes knowledge or better, habitualized familiarity with character forms and the intricacies of their physical inscription. Inscriptive practice, presumably beginning with explicit "knowledge that" stylus and tablet are its media, is first habitualized to become implicit "knowledge how" of encoding, and decoding. Only after this can they function as the "material-technological basis for scientific innovations and new theoretical devices" – with tables for multiplication, for accounting or for astronomical prediction being examples of such material/theoretical devices. Moreover, these artificial cultural-technical tasks are best undertaken in a similarly artificial environment: One provisioned with materials required for writing, and distanced from the stimuli and demands of everyday agricultural and artisanal practice.

The "cultural-technical" analogues connecting elementary writing instruction today with the practices of ancient Sumer form quite a long list. Such a list might begin with sequenced instruction, alphabets, multiplication tables, instructor examples, and specialized writing equipment; it might and extend from there to dictation, frontal instruction, and other exercises that appear to be structured in ways readily recognizable today. And the ways that these inscriptive and instructional cultural techniques, these implicit routines and habits, were communicated inter-generationally some 4000 years ago leads to some unconventional conclusions about the school today. What does such an uncanny correspondence of independent instances across millennia say about human learning and related cultural techniques?

First, it suggests that there is an efficacy, systematicity and mutual-reinforcing interdependency of at least some of the techniques and practices associated with institutional instruction and practice. To develop skills needed for the development and maintenance of a written cultural heritage seems to require considerable instructional effort and coordination, extending across both space and time, and kept at some remove from other forms of human activity. Second, it highlights the centrality of inscriptive and symbolic competencies in this nexus of techniques and practices. It brings to the fore broadly identifiable instructional configurations or scenarios, such as frontal instruction in recitation or dictation (perhaps today: "the stage on the sage;" see: King, 1993), and more individualized writing guidance through examples (vaguely reminiscent of the contemporary "guide on the side"). Whether in ancient Nippur or some forty centuries later in modern New York, reading and writing are skills reproduced from one generation to the other through carefully constructed and recognizably patterned physical arrangements and temporal sequences of instruction and practice.

Indeed, one can conjecture that the emergence of instructional specialization, sequential differentiation and scribal isolation represent a necessary preconditions for the reproduction of socially indispensable, multi-functional and multi-dimensional set of inscriptive abilities. In this context, the history and the possible continuities of education indeed are also the history and continuities of writing, to adapt the Hoskin quote from the outset. And seeing the human being as a "symbolic animal," one might go even further, and conclude that underlying the parallels between "educational" cultures over millennia is the broader continuity of what it is to be "human."

To engage in such speculation is to ask after the possibilities and limitations in human society and the human in general. Of course, such questioning must be done carefully, to avoid both rigid determinisms (e.g., of biology or neuroscience) and undifferentiated relativisms (e.g., a "cyborg" or "post-human" transhumanist visions of the future). One way that such questions of the cultural and material possibilities and limitations of the human have been investigated is through "philosophical anthropology," the study of "the shared circumstances of being-human" (de Lara & Taylor, 1998, p. 110). "Anthropology" in this sense refers to its root, the study (-ology) of the human (anthro-), rather than implying an examination exclusively of foreign or specialized cultures. Philosophical (or philosophically-inclined) anthropologies have studied cross cultural phenomena such "the smile" (Plessner, 1964) or other "techniques of the body" such as swimming, dancing, walking, and military marches (Mauss, 1977). What is often striking in these investigations is not at all the broad uniformity of these techniques across cultures, but their variations within an apparent logic of cultural orientations and human possibilities and limitations. Like the account provided above, investigations into philosophical anthropology also point to the human possibilities and limitations, perhaps even requirements, when it comes to human performance and social organization, as well as symbolic competencies and their material realization (e.g., see: Mollenhauer, 2014, pp. 12–55).

As school is debated and disputed in present day, writing practices and other cultural techniques continue to change. Keyboard and (touch-)screen are indisputably supplanting pencil and paper – in many instances. Cursive writing instruction is either being eliminated or significantly curtailed. As stated above, this ongoing change in material, communicative practices motivates serious doubts and debates about the functional viability of the school –going back decades, if not centuries. However, this has not fundamentally changed the instructional sequences, exercises and instructional methods used to reproduce symbolic cultural techniques in contemporary society. One might conclude, then, by venturing that it is perhaps not so much the technology or media that will signal change in these methods of reproduction, but rather the question of how they may (along with other factors) redefine *a*, or *the*, most fundamental component in cultural techniques and anthropology: That which is human. It is also important to acknowledge that post-humanist and trans-humanist thinkers from Nietzsche through Foucault to the present day, have been identifying, conceptualizing and celebrating these changes. Of course, these changes range from "prostheses" used to assist in reading, writing and speech (e.g., by physics Professor Stephen Hawking), or drugs used to focus attention and extend the attention span (e.g., see Stiegler, 2010). Still, to imagine these changes altering the underlying and often tacit or invisible preconditions for the reproduction of *human* culture would be to imagine changes well exceeding the scope of those occurring over the past 4000 years.

NOTES

[1] Proust (2012) explains: "We don't know how old the students were at the beginning of their scribal education. They were old enough to be able to manipulate clay and "calame, but still in the charge of their parents. Moreover, the age of the students could have changed according to the place and the period" (p. 162).

[2] For a more detailed consideration of Sumerian mathematical, geometric and related "problem texts," see Friberg (2007).

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ALEXANDER M. SIDORKIN

17. THE EMANCIPATION OF CHILDREN

The great liberation struggles of the 19th, 20th and 21st centuries are all distinct, and yet clearly connected by the same need for dignity. Working classes, people of colour, women, racial, ethnic and religious groups, casts, tribes, the disabled and sexual minorities – all the visible dominated groups developed unique claims to dignity, while taking inspiration from one another. Despite several convincing postmodernist reinterpretations, the liberation movements, together, create the strongest defining narrative of our age. Witnessing the recent rapid gains by gay and lesbian communities in Europe and the U.S., one cannot help wondering – who else is out there? The question is not whether the liberation projects are completed – they are certainly not and the progress is still fragile. The question is – did the social scientist and politicians miss some groups altogether? And if they did, there seems to be an obligation to find them, especially those who cannot speak for themselves. The obligation is especially valid if we tend to think of them as completely outside the liberation framework.

Let us consider children; school children in particular. They are a distinct and easily identifiable group, compelled to perform the unpaid labour of school learning. The compliance is enforced by a number of presently existing juridical and cultural frameworks which effectively curtail/restrict the political, social and economic rights and freedoms of children. Some may argue that with the passing of child labour and compulsory schooling laws, the liberation of children already occurred in the early 20th century. It did not; the meagrely-paid physical labour of children was simply replaced with the completely unpaid and compulsory labour of school learning. The very language of children's innocence, purity and the need to be protected, the very trappings of the "sheltered class" can be better understood as ways of exercising even greater control than as evidence of liberation. In this respect, the subjugation of children is not much different from that of women, whose "innocence" had been invented to justify the patriarchal order for centuries.

Nichols, Glass and Berliner (2006) provide good reasons for considering the issue of emancipation. They demonstrate that school accountability reforms either do not work to increase student achievement, or have only modest and intermittent influence. Why that is the case remains unclear. However, it is reasonable to suggest that productivity of children's labour does not increase, because the reforms mostly ignore the labour of students. Instead of dealing with the productivity and motivation of the main workforce, the accountability reforms tend to focus on the performance

P. Siljander et al. (Eds.), Schools in Transition, 289–301.

of low-level managers (i.e teachers), and on establishing administrative, Soviet-style, non-market controls over them.

One of the proven ways to increase the productivity of workers is to move to a normal, monetised labour market, where children are paid for their work. However, to implement such a shift, we must also emancipate the labourers. The rationale for the emancipation of children offered here does not stem from the notion of justice, although in another paper, it could. The rationale is based on economic necessity.

THE HUMAN CAPITAL THEORY AND ITS BLIND SPOT

The authors of human capital theory or HCT (Mincer, 1958; Schultz, 1963; Becker, 1993) have radically recast education from a form of consumption into a form of investment – an investment in human capital. Economic theory previous to this treated most labour as a "fungible" commodity, where one kind of labour was supposed to be easily interchangeable with another. The assumption became manifestly untenable with the massification of education and differentiation of earnings. The human capital theorists have shown that formal schooling and work experience differentiate the quality of labour and both these factors can explain the differences in productivity and life-time income. These thinkers are at least partially responsible for the remarkable growth of public expenditures on education in all developed and many developing countries. HCT has set in motion the global educational arms race. Increased spending, in turn, generated the demand for accountability, for no government on Earth wants to spend significant resources on a project with uncertain results. The fathers/founders of the HCT can therefore be credited with helping reshape the whole of modern education, which is a truly remarkable achievement.

As their early Marxist critics pointed out, "…this degree of success is secured at a considerable price: 'labor' disappears as a fundamental explanatory category and is absorbed into a concept of capital in no way enriched to handle labor's special character (Bowles & Gintis, 1975)." That is certainly true; workers suddenly look more like capitalists, coolly collecting higher salaries as a return on investments in their own education. HCT theorists either do not know or do not care about the actual source of the added value inside learners.

Another unfortunate consequence of the HCT is under-appreciation of the fact that students are *also* labourers while they are students. Their own efforts are one of the major sources of the increased human capacity to produce. What Marx used to call "labour power" is not a gift of nature, as he thought, but is intentionally and strenuously created, mainly by the worker herself. Of course, teachers and other adults help, too, but children themselves are working many years for many hours to obtain an education. In aggregate, children contribute the bulk of labour towards their own development.

Is student work investment, labour or both? I will avoid going into this discussion here, and refer to another paper (Sidorkin, 2007). It suffices to establish that while

children are at school they are not paid anything, and they are not enjoying leisure. One may argue that they are paid for their work later in life in the form of higher salaries. However, even if we accept this explanation, the nature of the delay in payment is hard to justify in comparison to other forms of work. In the rest of industry, a 13–20 years' delay in payment would be considered unimaginable, precisely because the regular and timely pay for work performed is the essential condition of the labour market. Only in certain forms of bound, non-free labour do we find significant time gaps between work performed and wages paid.

With delayed payment there is the risk, if not the probability, of not being paid at all. If one only manages to graduate from high school, one's investment does not bear much fruit at all, for the wage premium in comparison to a high school dropout is meagre at best. The probabilistic nature of wages, again, is highly unusual for labour markets. The rule is the opposite – an explicit contract between an employer and a worker, based on mutually agreed understanding of the wage's amount and timing.

Both attendance and work in school are compulsory. The compulsion is legally enforced, both directly through truancy laws and indirectly with the prohibition to seek other employment. A child cannot legally refuse to work on school learning. While in several countries, an option of home schooling is available, parents usually must prove that an equivalent amount of labour is performed by the child. Even as schooling becomes more optional, school labour becomes more required.

Thus, the three features of school labour which set it apart from most other wage labour are as follows: (1) payment is delayed, (2) payment is not guaranteed, and (3) the worker is not free to abandon his workplace (school). Despite all these features, children's school-related work definitely belongs to the broader world of labour arrangements, even though outside of the narrower category of wage labour. We may not immediately recognize learning as labour, precisely because of its unusual features. However, even a casual investigation into the history of labour relations will reveal that all these unusual features have occurred before in other economic systems, for example in the form of serfdom, peonage, modern slavery, and domestic labour of women. In other words, if we expand our horizon from the narrowly defined contemporary wage labour to a much broader array of labour practices, we will easily recognize that school learning is a form of labour.

The existing field of labour economics has evolved into the study of wage labour. The entire categorical apparatus has been formed for that task and cannot be easily reused for the analysis of school labour. Economic anthropology is the only field where such relations are discussed, though surprisingly, never applied to contemporary schooling. In this respect, the labour economics of schooling is a non-existent discipline, open for development. This paper is one modest attempt to start somewhere.

The HCT has failed to account for the uniqueness of children's own contribution to the development of human capital, and therefore remains blind to the possibilities of increasing motivation and productivity. Most importantly, economists of

education have never been able to explain why many children, especially from lower classes, seem to avoid working hard on their own schooling. This remains the HCT's peculiar blind spot. Because of the theory's enormous influence, the rest of the social sciences tend to ignore school children as labourers, which in turn makes it very difficult to see the need to liberalise the market.

To his credit, Gary Becker understood the problem even though he has not offered a solution. He demonstrates that compulsory education laws increases investment in human capital, but then wonders:

> Since the purpose of minimum standard is to offset the effects of poverty and niggardliness, appropriate subsidies could in principle achieve the same result without compulsion. The effectiveness of voluntary investment in human capital is often underrated because subsidies to human capital; usually cover, at best, only a portion of earnings forgone. If they cover all costs, including those foregone, almost all children, I am confident, would continue in school through the age desired. (Becker, 1993, p. 128)

This short passage contains an implicit but radical proposal: governments should pay students to attend school. Even as an aside, the suggestion is remarkable. However, it remained marginal to the HCT because it contradicts Becker's own overall framework. Viewing education as a form of investment paints a picture of education that is much too rosy to allow for serious reform. The HCT makes schooling look so attractive to students that anything compulsory becomes very easy to justify. If the investment is so profitable, and some people are less than enthusiastic about it, well, something must be wrong with those people. Therefore, compulsion can be justified.

THE EMERGENCE OF CHILDHOOD

Contemporary childhood emerged over the centuries as a class of bound labourers, specifically shaped in such a way as to ensure their compliance – first among the upper and middle classes, and then among the lower classes. Pre-modern Europe needed to compel a growing segment of population to participate in the unpaid work of school learning. It was accomplished by creating a special group with limited rights, and by convincing everyone that the labour of schooling is actually a kind of service provided to children. Ultimately, the modern conception of childhood was born of power relations formed by economic necessity. The modern redefinition of childhood is a special case of social class formation. Schoolchildren are not a "class" in the narrow Marxist understanding, but they certainly can be considered a social class in a broader sense.

Ariès (1962) demonstrates several means by which childhood was redefined in European societies at the end of the Middle Ages. These included distinctive dress, segregation from adults in play and work, the exaggeration of children's immaturity, the idea of childhood innocence that needs to be preserved, linking schooling to

biological age, stripping students of political self-governance and withdrawal of many previously existing rights, corporal punishment and intrusive supervision. The process was completed with the creation of a separate juvenile justice system and with popular research on the "adolescent brain." The history of childhood resembles the formation of subjugated groups, such as the lower classes, women, the non-European races, etc. The same legal and cultural mechanisms, rhetorical techniques, and ideological moves were employed. Moreover, children were symbolically linked and compared to such groups already subjugated.

Again, I will refrain from explaining here in detail how the status of children has been changed to gradually limit their freedoms and rights, and how the age census for full social participation has been steadily raised (see Sidorkin, 2006). It suffices to mention that the current legal and cultural status of children is not something natural or ancient. It has been created through a series of cultural shifts, over a considerable period of time. While the general trend for the adult population was to gain more freedom, and broader rights, that for children was quite the opposite. School attendance laws were everywhere accompanied by the establishment of legal restrictions, pitched as protective of children. The restrictions have one main purpose – to keep children in schools and assure their cooperation.

THE RADICAL SOLUTION

The system of human capital production based on the compulsory labour of children may be nearing its end. The failure of the accountability reform, already mentioned, is but one indicator. The very existence of the substantial achievement gaps between the poor and the middle class children remain unexplained and less and less tolerable. With so little genetic variation among the population, it is puzzling why the significant learning potential of many children remains untapped. Many are clearly working well below their capacity. This could be best explained not by cultural capital theories, and not by biological explanation, but by labour economics. Bound labour in all its forms and shapes (modern slavery, peonage, servitude, serfdom, Soviet and Chinese collective farmers, etc.) impose significant limitations on the growth of productivity. Unmotivated labourers will impede the rapid gains of productivity associated with technological and organizational improvements found in industries with emancipated labour. There is no evidence that the information technology revolution made any difference to the productivity of learning, despite the fact that education is a prime example of an information-based industry. Public and private expenditures on education keep rising, while academic results remain flat or increase only slightly.

The radical way to increase the productivity of student learning should include emancipating the labour market and paying children for the work they do. If advanced societies fail to do that, schools will increasingly bottle-neck economic and technological development. Its cost will inevitably increase, and output will stagnate, regardless of our best efforts. In its present economic form, education will

never be able to undergo the kind of revolutionary productivity transformations experienced by most other major industries. In the U.S., the rapid recent gains in labour productivity are attributed to technical progress in information and communication technology, the flexibility of regulations and the lax immigration policies that allow an influx of skilled workers (Bernanke, 2005). Europe, with its more restrictive immigration policies and greater regulations, did not see such a rapid increase in labour productivity, despite access to the same advances in information technology. North America cannot indefinitely continue importing its education as a finished product from the rest of the world and continue spending the highest portion of GDP on education: over 7%, and rising, surpassed proportionally only by a few other countries (OECD, 2013). The combination of these two facts is troubling.

The competition for a skilled work force is becoming more and more global, with demand in middle-income countries rapidly growing. Those are the countries which used to be exporters of skilled workers. It is difficult to imagine a plausible scenario where the current trends in educational reforms produce any significant, let alone radical, improvements in the outcomes of schooling. Even the most adamant reformers do not believe a significant change in the productivity of learning can be achieved. Their dreams are limited to catching up with other countries and eliminating the embarrassing achievement gap between the rich and the poor. The latter goal also seems to be elusive, although *No Child Left Behind* was explicitly designed to close the gap (Lee, 2006). If educators are able to shorten the time spent on schooling and increase the quality of learning at the same time, even without any savings in the cost of education, it would represent a significant boost to the overall economy.

Students should be paid to learn specific things (not to attend schools), and the monetary incentive should be sufficient to actually motivate youngsters to maximize their effort. This will create an incentive to learn, but also make learning much more efficient, and less reliant on expensive schooling. Paying students for learning will force those who pay to be more prudent about what they believe should be learned, and may reduce and deepen the curriculum. It will also create new role models in adolescent communities: kids who can make money just by using their brains. This will also alter the dynamics of families, give children a modicum of economic independence from parents, and restore some of their political, property, and civil rights, taken away in the past. Even partial emancipation of children will be good for civic engagement and for civil society. Schools remain autocratic islands, hampering early socialization of children into the democratic polity. And schools are autocratic because schoolchildren have so few rights.

The subjugated status of children and their economic position as a bounded class are closely linked. Let us entertain for a moment the possibility that a way can be found to pay children directly for learning what we, adults, want them to learn. There are, after all, only two ways of getting people to do what they would not normally want to do: to compel them and to pay them. Just paying students is not going to work without a reform to free children so they can enter the labour market as free agents.

The creation of a true market of learning labour requires the emancipation of children. Children are deemed immature and unable to make good decisions, because we put them in a position of second-class citizens, utterly dependent on parental and state authority. We literally train them to be helpless, and then limit their rights to justify the helplessness. If they were suddenly immersed in a situation with a free labour market, they may not make the best choices. To make more or less rational choices, would they not need to be free economic and political agents, cognizant of their own interests? And capable of becoming wage earners and consumers? However, such agency is denied to them precisely because they are deemed "immature" and therefore cannot choose wisely.

ELEMENTS OF EMANCIPATION

Children's rights are a well-debated issue (Children's rights, 2006), and I will refrain from reviewing the discussion here. My position coincides with the "liberationist" camp (Farson, 1974; Holt, 1975; Cohen, 1980). The concern in this paper is not with children's rights as such, but with the economic implications of these rights. We should emancipate children as far as possible, if we want the labour markets to work properly. If coercion is left in place, markets will be distorted, inefficient, and in need of excessive regulation.

The case of illegal immigrants is an important analogy for our discussion here. Their below-market wages are the result of the immigrants' unequal legal status. Political inequality directly creates distortions in labour relations. But cheap undocumented labour also creates unrealistically low prices in the agricultural and service industries and distorts competition in other markets as well. Something like that happens in education: the abundance of free labour makes schools inefficient and slow to change, in part because there is no competition from more expensive, but also more productive labour. Very little incentive exists for the industry to automate and intensify the labour of students. Extraordinary resources are expended on enforcement, on just keeping youngsters in schools, in relative order, and preventing them from harming each other. The paradox of bound labour economies is that the employers have simultaneously too much and too little power over employees.

One straightforward solution is to stop treating children as a legally defined class, and design a legal and political system that treats people as individuals. This can be done initially by expanding the "Mature minor doctrine" (Blustein et al., 1999) from healthcare decisions to all other rights. The doctrine has been adopted by several American states relatively recently. It gives the right to minors under 18 to make important decisions about their healthcare, if they can demonstrate maturity. For example, the Arkansas statute states, "any emancipated minor of sufficient intelligence to understand and appreciate the consequences of the proposed surgical or medical treatment or procedures, for himself [may offer consent] (Cit. in Ehrlich & Weddington, 2006)." It is not immediately clear why the same standard may not be applied to the right to own property, to choose education, to vote, and everything

else adults get just by virtue of their age. Whichever scale we may use to measure maturity or the ability to make decisions, there will be many adults who are deemed immature, and many children who will measure up as adults. The doctrine does not extend to adults, of course. Reaching the arbitrary age automatically gives the full rights to an individual regardless of the measured level of maturity, with a few exceptions involving severely mentally disabled persons, and in some countries, the military and the incarcerated. The automatic granting of rights, of course, should remain. The proposal is this: individuals should receive full rights when they mature, *or* at the age of majority, whichever comes first. What is the justification for receiving most rights at the same time? Why not obtain first the right to own property, and then to drive, and a few years later – to marry?

In the longer term, the change I advocate is similar to that of women's emancipation. In democratic countries, women are no longer treated as a separate class of citizens for most purposes. Although remnants of such treatment exist (in military service or for the purposes of retirement age, for example), in most affairs women are treated on individual merit or need, not as members of a special category. In democratic countries, ethnicity or religious affiliation are not class-defining categories. Although they remain important for personal identity, political systems make an effort to avoid treating their members as members of the group. Similarly, instead of simply assuming maturity levels and the ability to judge, we should be able to establish simple tests (judicial or administrative) that qualify a person to own property, to spend her own money, to live alone, to drive, to vote, to work for wages, etc. – regardless of age.

Such a commonly delayed privilege as a driver's license is based on the high probability of younger people being less careful, or less able to drive than adults. It is done because we do not have a good way of measuring judgement or level of risk-taking. So we take a guess. However, the same strategy should bar men of 16–20 from driving, for their fatality rates are double those of women of the same age (Elliott et al., 2006). Such a proposal seems untenable, because group treatment for adults is perceived as discriminatory and unfair. But if we can measure the fitness to drive (and it may include certain height, strength, and body mass), why set any age limits at all? It is unlikely that 7-year olds will come in droves to take their driving test. It is likely many 14-year old youth will, but it is also very likely that most of them will fail. It is also possible that some individuals will not be able to pass the tests until they are 25. Others will never be able to drive, because they present a clearly defined danger to themselves and others.

The legal doctrine of the age of majority is already split into many sub-categories. "Any line," – writes Howard Cohen, – "which uses age to distinguish people with rights from people without can be shown to be arbitrary" (Cohen, 1980, p. 48). Marriage, alcohol consumption, military service, voting rights, owning property, making decisions about one's body, legal liability – all of these are legal at different ages and may coincide in one country and be different in another. In the case of the mentally ill, the burden of proof is on the party that seeks to deny them rights. In

the case of minors, legal emancipation is possible, but the burden of proof is on the minors seeking emancipation. There does not seem to be any rational ground for such a disparity.

What I am suggesting here is abolishing the very notion of the age of majority, and turning most of legal and property rights into conditional rights (Jones, 1994, pp. 194–195). I fully realize that this proposition has some unpleasant historical connotations. Literacy and property censuses were widely used in the past to disenfranchise minority voters. Perhaps a compromise can work for voting rights. All adult citizens should be granted the right to vote, but this would not prevent the public from allowing children to obtain the same right earlier, if they can demonstrate reasonable competence. In other words, an extension of the mature minor doctrine into voting rights may be sufficient. In most other cases, making some every-day rights conditional would allow minors to achieve segments of adulthood at different times.

RIGHTS

In order for monetary incentives to work, children should be able to spend their own money. And this should include some current consumption, not only delayed consumption in terms of savings or investments. It would be fascinating to watch how families may adjust to having a wage earner as young as 6 years old. What kinds of negotiations and spending/saving patterns emerge? How will the balance of power shift? One would guess that it won't hurt children to have a little more power and little more say in family affairs. When women entered the labour market, it did not hurt their standing within the family hierarchy; rather, it empowered them to demand more respect and to break financial dependency on their husbands and fathers. Having the ability to work empowered women to stand up against abuse, and gain equal status with men. Something similar could happen to children.

Of course, we should still ease children into becoming wage-earners. For example, from birth until age 8 or so, parents or guardians should have the right to spend or invest the money on behalf of the child. From age 8 to age 14, both the child and her parents need to agree on how the money is spent or invested. In the case of disagreement, funds are automatically invested in a college or trust fund. After the age of 14, the child reaches the age of majority in financial and property matters. Alternatively, as suggested in the previous section, we may develop tests of financial maturity. This example serves to show what kinds of solutions may be thought of, rather than to suggest a specific solution.

One may ask: what happens if many children refuse to learn, and instead waste their time doing nothing? To be only a little cynical, this is what is already happening in certain segments of the population. The emancipation of children is intended to change the situation and to create economic incentives for all children to learn at their maximum potential. Parents of all classes are unlikely to continue providing unrestricted entertainment, food and shelter to children who do nothing *if* there exists

a real opportunity to earn money while also working on one's own future. They will apply all sorts of pressures to encourage children to learn, including limiting or blocking children's access to money and goods. In a way, parents also get more control over children's educational choices. This is especially important for poor families. If a middle class parent always has some leverage over their children (take away the car keys, or cut the allowance), poor parents do not, and often have no real levers of influence over their children other than physical force or the power of persuasion.

The age of majority is unreasonably high, because adolescents have become unable to support themselves through employment. However, there is no practical reason for some adolescents not to strike out on their own much earlier in life. One may object that this can increase homelessness or street crime. The opposite is likely to happen. Teenage homelessness happens because adolescents have no legal means of supporting themselves; nor can they rent a place to live (most landlords will not sign a lease with a minor, because it is likely to be unenforceable in court). The federally funded National Runaway Safeline reports that between 1.6 and 2.8 million youth a year run away, "47% of runaway/homeless youth indicated that conflict between them and their parent or guardian was a major problem" (The National Runaway Safeline, 2014). Most of the rest have a conflict with peers or school authorities. 32% of them attempt suicide at some point in their lives. This is a tremendous price to pay for keeping a lot of teenagers out of the labour and housing markets. Giving adolescents a chance to earn money by studying or working will relieve some economic pressure from them, and benefit the economy.

The most important legal change would be the elimination of child labour laws. The context in which they were adopted was vastly different from the present. In the mid-19th century, many occupations were dangerous for children. Most importantly, child wages were a very strong incentive for parents to keep them out of schools. At that time, taxpayers certainly could not afford to pay children to go to school or to learn on their own. In effect, child labour laws restricted competition for child labour, so that children would have no choice but to attend schools. However, this initial rationale was obscured and transformed, and paid work by children has become somehow morally objectionable. It is difficult to find a contemporary rationale for our disdain regarding children working for money. Now we do spend vast amounts of money on public education, and labour safety regulations are firmly in place. There is little or no danger that children will abandon education *en masse*, and become manual workers, if there is a real alternative of earning by studying.

Of all rights, the sexual and reproductive rights are a tricky issue, and I do not wish the ensuing point to derail the entire argument should I fail to articulate it wisely. Let me only assert that in many developed societies adolescents and children have already to a certain degree, achieved de-facto sexual liberation. The public health concern about teenage parents remains important, and nothing in this emancipatory project should seem to diminish these concerns. I do not see any reasons to abandon or soften any paedophilia laws, because they mainly restrict the rights of adults, not

children. They do not, at least in my view, conflict with the aim of emancipating children.

CONSEQUENCES

The transition may or may not be disruptive. Historical records show that the abolition of American slavery and Russian serfdom both caused large economic shifts, and resulted in a series of political and cultural challenges. Both caused major economic disruptions (Cooper et al., 2000). However, women's suffrage and the entrance of women into the labour markets were connected but not simultaneous processes. Women's emancipation was much more gradual (and one may argue, not yet complete even in post-industrial societies), and did not cause major economic crises. However, the essence of the connection is the same. Lack of political and civil rights significantly affects labour markets. There does not seem to be a danger of political disruption, although giving even a few children voting rights may offset delicate balances of power that exist in many countries. Parties that seem to be swimming against the demographic currents (for example the Republican Party in the U.S.A.) will probably oppose any moves to make the electorate younger.

One major economic implication is for the teaching force and the economics of public and private schooling. Teaching will not disappear, but children and their families will determine who and how much will help them to learn. Some may stay at home and do everything on their own, and pocket all the money. Others will hire teachers as tutors, and still others will choose to attend more traditional schools. In other words, the principle of free labour will prevail, and no one will be forced to be anywhere or do anything for free.

A UTOPIAN CONCLUSION

In my utopia, an office building houses people of all ages, young and old. A 12-year old shares an office with a 70-year old; both are working, but also learning part-time. The 12-year old will still have some money on his publicly-funded learning account, to cover, roughly, a typical high school curriculum. He can either learn algebra himself, or hire help. He may or may not ever get to learn algebra, but rather learn to play the guitar. There is no public money available for that, so he has to spend some of his own cash. Their employer is considering contributing for the algebra – the adolescent may need it in his next assignment. The 70-year old is urging him to do the algebra now, and use the earnings for guitar lessons. It is more difficult to learn both when you're older – she says.

Her own public learning account is long gone, but she still takes lessons, just for fun. She considers taking another college degree. It may not help her career prospects, but learning is not just about human capital; it is also a form of consumption. People are free to enter higher education or the labour force at any age, and they enter and leave at will. Their lives are not locked in one predictable sequence of school,

college, work, and retirement. They are firmly in charge of their own learning, even though there is a remarkable industry of helping anyone to learn anything. It includes computer-assisted and human teaching, individual, small group, and large group learning. People are paid to be learning the onerous topics that the society wants them to know. From time to time, a smart monitoring system realizes there is a shortage of a particular advanced skill in the labour force. It immediately allocates additional funds for people to learn it. But there is always a plenty of funds to make sure the basic skills are learned – reading, writing, quantitative reasoning, citizenship, health, consumer literacy. Yet some refuse to learn some of it as a matter of principle. So be it; this is the price for having a liberal democratic society.

This is a well-educated society, which spends significant resources on giving all its citizens the opportunity to learn. It will reward talented students, and talented teachers, who engage each other in a multitude of different ways. In every case, it is the student who will come and ask a teacher for help. This society will use less coercion, and tend to see all of its citizens as endowed with rights, regardless of race, gender, class, or age. It will have 10 year old senators and 90 year old students.

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PAULI SILJANDER AND KIMMO KONTIO

18. TENSIONS AND CONTROVERSIES OF SCHOOL DEVELOPMENT – SOME REMARKS

This book has discussed the role and functions of the school as a pedagogical institution from different points of view. In this final chapter we highlight some of the themes of discussion raised in the preceding articles.

The articles in this book reflect recent discourse on the institutional role of the school – one that has aroused tensions and created conflicting views about the need to develop schools. This applies both to the traditional functions of the school as a pedagogical institution (such as cultural transmission, *Bildung*, education, teaching, learning, socialization, supporting personal growth) and expectations on the school as a social institution or arena, i.e. the functions of which are determined by 'non-pedagogical' foundations of civil society outside school (such as international competitiveness, economic growth, reproduction of labor, promotion of production). As the introductory chapter makes clear, the relationship between the pedagogical and social, and its determination, are at the core of any formulation of the task of the modern school institution, which, per se, maintains a tension between the "internal" and the "external". So, this question is not a characteristic of only recent discourse. In this sense, the recent discourse is not just a present-day peculiarity, but reflects the very traditional and fundamental tension that itself characterizes the modern school as a pedagogical institution.

Therefore, the question is: how should the *pedagogical* function of the school be understood now and in the future? The question can be considered from both an *internal* and an *external* point of view.

1. Recent discourse on the role of the school, motivated especially by the applications of new learning theories (see Peltonen's article in this volume), argues that the school is not, nor can be, an exclusive arena for the implementation of pedagogical functions. It is assumed that the traditional tasks of the school have moved or are moving to contexts outside the school. Learning is now taking place in virtual networks and in the global environments of digital media. These learning environments have no need for institutions like the school, nor for rigid professional structures. As for the achievement of individual identity and personal growth, these are sought in places outside the school, i.e. in peer groups, channels of social media, the entertainment industry, etc. The school has thus lost its normative power and potential as a *Bildung* institution.

P. Siljander et al. (Eds.), Schools in Transition, 303–312.

The main content of these arguments is that the world of children and adolescents is different from the world represented or conveyed by the school as a pedagogical institution. In other words, the changes in everyday life are so quick that the structures, functions, goals and cultures, *modus operandi* of the school are not able to keep pace. The gap between the institutional forms of the school and the changing environment is more pronounced than ever before.

This line of argumentation is represented by an increasing number of school reformists and learning theorists, whose leading pedagogical principle is to open up the doors of the school to the surrounding society, and at the same time to dispel the boundary between the pedagogical and the social.

The fundamental logic of this kind of thinking is not new. At its core we have the argument of "*artificiality*", according to which the school, as a learning environment, is 'artificial', 'unnatural' or 'not natural' in being alienated from everyday life and societal practice. Modern variations of this argument basically repeat what the advocates of "deschooling" have proposed, with Ivan Illich as the most famous example in his book *Deschooling Society* (1971). What is new is that in current discourse, criticism of school in line with the deschooling argumentation has won support from the developers of new learning theories. According to it, learning is not dependent on teaching or any other traditional school practices. If a meaningful function is to remain with the school, the tasks assigned to it need to be changed or a new role needs to be determined for the school as a social institution. This means that the school's task is not pedagogical anymore (at least not in the traditional sense); rather, its special function is to ride the wave of modernization, create new applications for social and technological innovations, and – if possible – show the direction for social reforms.

What, then, is the cause for the tension or conflict presumed above? The conflict centers on the *pedagogical* function of the school, i.e., to what extent the school can be assigned educational tasks in modern society which do not fit into the functions of any other social institution or into activities implemented in the "natural contexts" of everyday life.

The tension and conflict is generated by an apparent contradiction between the fundamental theses of current learning theories with their 'open learning environments' and the special task of school, which is to regulate the processes of learning and growth, i.e. exactly what school has traditionally been assumed to be doing.

On the other hand, the problematic argument of *naturalism* which underlies the thesis of artificiality, assumes that the developmental trends and forms of social interaction outside the school are something "natural". It is possible, of course, that as institutional schooling enables a pupil to take reflective distance from the social world outside the school, teaching and learning processes at school can also diverge from the child's own horizon of experiences in such a way that the learning processes typical of schooling are meaningless and demotivating. It is misleading, however, to assume that the world outside of the school *an sich*, the everyday praxis,

offers an optimum environment or "natural" context for learning processes. The modern civic society – and to an even greater extent, the postmodern society – is typically a playground for various competing interest groups and ideologies where different kinds of hegemonic struggles are being constantly fought, each striving for dominance, popularity and social living space. Activities in the social world are not guided by any uniform "natural" aims, developmental trends or rules of the game, by which the school world could be considered "unnatural". Rather, the practices of civic society manifest themselves as diverse and controversial demands that cannot be brought to school without some form of filtering, selection, and critique.

Many of the articles in this book underscore the school's basic function as a *pedagogical institution*, involving a counter-critique, at least implicitly, of the argument of artificiality, and a skeptical relationship to the development programs propagated by the agendas of new learning theories. At the core of the classic school theories against the artificiality argument is the notion that it is exactly for *pedagogical* reasons that the school is – and has to be – 'artificial' as a place for the organization of teaching and learning situations. Its function is to implement a controlled and deliberate *reduction of the complexity of civic society*. The school is not meant to imitate the structures and interaction forms of civic society. The school is not a '*society in miniature*' (cf. Dewey), where the contents, structures and working methods of society can be transferred (or could ever be thought sensible to transfer) to the unique interactional relationships the school world. In other words, there is still a need for school: that is, an autonomous pedagogical institution which has the right and duty to keep at its core the special tasks already determined in the classic school theories – of choosing and transforming the contents to be learnt, of teaching, of education, of socialization, of supporting individual identity, etc. – all those functions which cannot be transferred to other institutions or to the learning processes implemented in the contexts of everyday life. The educational processes cannot be given up to the changing and accidental contexts of everyday life (Herbart), even if an effort were made to 'pedagogicalize' such situations. The basic task of the school as an educational institution is to cater for the prerequisites to enable individual growth and developmental potential by organizing the structures and forms of interaction at school on a pedagogical basis. In essence, school is about optimizing the relationship between self-regulated growth and learning processes and socio-cultural determination. The task is *pedagogical* and belongs primarily to the school and not to any other social institution.

2. Although the above described aporia have emerged from the *internal* tensions in school development, they are, however, closely related to the *external* expectations on school as a social institution which fulfils the political, economic and ideological objectives. Several articles in this book attend to the fact that ideological, non-pedagogical reform programs coming from outside the school are intruding into the internal functions of the school. We can talk – in terms of Habermas' terminology – of the "colonialization of the lifeworld", as a result of which the pedagogical mandate of schools is even narrower and thinner. The phenomenon is, of course,

not new. Many of the most considerable school reform movements implemented in the 20th century were propagated through political ideological programs.[1] However, the current situation is marked mainly by two special characteristics. On the one hand, the cultural *diversity* of various ideologies, thoughts and viewpoints is increasing with globalization, adding to pressures and expectations for the development of national educational systems. On the other hand, the educational policy agendas of supranational organizations and institutions increasingly impinge on national educational policy, thus leading to a noticeable uniformity in educational development. The latter can be a consequence of the former, but it has been motivated to some extent in recent years by the competition between economic regions (EU, USA, China) and, on the national level, by each country's "international competitive edge", which in turn has given rise to movements for the reformation of schools. The phenomenon has been called "the global school reform movement" (Sahlberg, 2011), one of the characteristic aims of which is to establish common learning standards for schools, and standardized learning tests to evaluate learning results.

The trend in standardizing schools is not limited learning objectives and the measuring of procedures for learning outcomes, but extends broadly to a curriculum work, contents and subject matters of learning, working methods, teachers' professional work, and administration of schools.

In the light of the articles in this book, there is no empirical evidence to support the view that this reformist approach produces the desired results. Instead, there is a vast amount of well-established pedagogical critique of "the global school reform movement" (see, for example, Schönig's article in this volume) according to which these reforms endanger the traditional pedagogical functions of school and, in addition, the expression of serious doubts on the external efficiency of these reforms. This critique is targeted against the very fundamental economic rationale of these reforms i.e. opposing the belief that the measuring of cognitive skills with standardized tests is the best way to achieve the economic well-being of the individual and nation.

What should be noted is that educational policy which emphasizes the crucial importance of the cognitive skills reflects, in a way, a kind of "new interpretation" of the most traditional economic theory of the school i.e. human capital theory. That is, in the "traditional formulation" of the human capital theory the relationship between education and economic outcomes are seen in quantitative terms, typically by studying the causality between *years of schooling* and the direct market benefits of education (earnings and economic growth). In this framework, there is no need to define the concept of human capital in any strict sense referring specifically e.g. to the cognitive skills. For example, Gary Becker's definition of the human capital concept is very broad and includes knowledge, skills, values and habits (see Levin, 2012) i.e. many components that are impossible to measure with the standardized tests. The main focus of this "traditional formulation of human capital concept is found in the labor market and does not offer, or does not even attempt to offer, any insight to the internal efficiency of schooling. Schooling remains, truly, a "black box". Moreover, in this framework there is no need – because of the general nature

of the definition of human capital concept – to take any stand on which subjects are taught in schools. This is rather a pedagogical not an economic question.

However, the empirical evidence supporting the thesis that raising the schooling levels of the population (i.e. years of schooling) guarantees an improvement in economic well-being is controversial (e.g. Hanushek & Woessmann, 2008). Indeed, especially the neo-classical human capital orthodoxy, in conjunction with its other reductionist features, includes a very reductionist view of the function of labor markets and, because of this, the verification of the hypothesis that the amount of schooling is causally related to the increasing economic outcomes has never been convincingly established (see Kontio's and Sailer's article in this volume). Because of the lack of plausible evidence for this causal relationship, economists of education have, quite often, preferred to consider the efficiency of education from a qualitative point of view, instead of devoting themselves to studying the relationship between educational investment and economic outcomes purely on quantitative terms. Shifting the point of view from the amount of schooling to the quality of schooling has enormous potential effects on educational investment policy.

Namely, when economists of education attempt to identify and address issues of the quality of education, they have typically drawn on the more restricted definition of human capital concept than the traditional, very general definition. This is because the identification of the quality of education means, from the economic point of view, the identification of those *specific* skills that promote economic well-being and, consequently, the demarcation of these from the other possible skills that are evaluated as inessential to economic well-being. Consequently, the identification of the specific skills makes it possible, in principle, to construct alternative and "more focused" policy recommendations compared to the quantitative approach. This is to say that from the qualitative point of view, efficient educational investment policy does not mean increasing the years of schooling but instead, potentially, reducing school years.[2] Moreover, with the help of the more restricted definition of the concept of skill, it becomes, potentially, possible to make stronger value judgments concerning the subjects taught in the schools and about the structural changes in school institution.

At the abstract level, the argument on behalf of the quality of education is, supposedly, understandable and acceptable. Certainly the quantitative approach for evaluating the efficiency of educational investment is rough and it is possible to think, for example, that increased investment on education may lead to inefficiencies if the question of screening is not taken into account. However, on leaving the abstract sphere, challenges emerge.

Leaving aside all the logical and familiar difficulties related to the anticipation of the skill demands in future labor markets, their transformation to the educational qualifications and pedagogical arrangements, it is evident that the specific skills emphasized, which are those from which the global educational policy recommendation are derived, correspond exactly to cognitive skills measured by standardized tests. Now, when considering the empirical evidence on the effectiveness of these school

reforms – i.e. exactly to the belief that these specific skills are crucial in promoting economic well-being – the first thing to note is that there is virtually no consensus among the economists of education. Studies can be found which suggest that cognitive skills have powerful effects on individual earnings, distribution of income and economic growth. Those who lean on this research, and support as a consequence the development a *high quality school*, recommend for example incentives for schools to develop strong accountability systems that accurately measure student performance (e.g Hanushek & Kimko, 2000; Hanushek & Woessmann, 2008). On the other hand, studies can also be found that suggest that cognitive skills measured by standardized tests explain only a minority fraction of the impact of educational attainment on earnings and that the evidence of the increasing importance of the cognitive skills on earnings is absent, or at best, mixed. They go on to claim that the usefulness of the test scores when selecting employees is modest at best. An informative summary of these results can be found from Levin (2012). Naturally, these results lead to crucially different policy recommendations.

So, in light of the mixed evidence of the efficiency of the "the global school reform movement", it would be fair to ask the following question: Are the cognitive skills measured by standardized tests as important in terms of economic well-being, as is often assumed? The first problem related to this question is, of course, methodological i.e. how adequately well standardized tests measure cognitive skills? Do these, for example, succeed in measuring the problem-solving skills? The second problem is more fundamental: if the cognitive skills do not explain individual economic success as much as assumed, but instead, economic success is largely determined by skills that cannot be measured with standardized tests, the fundamental economic rationale of the global school reform movement is eroded. If so, then there is always a possibility that a "high quality education" means something else than "test-driven education" and, consequently, the cost-effectiveness of these school reforms will be questionable. As the Nobel Prize winner James Heckman (1999, 1) writes: "… the preoccupation with cognition and academic "smarts" as measured by test scores to the exclusion of social adaptability and motivation causes a serious bias in the evaluation of many human capital interventions…".

3. Along with the determination of common learning standards, another megatrend in current school reforms seems to be *digitalization*, i.e. the reforming of the learning environments and teaching practices in schools by means of the information and communication technologies and digital media. The requirements faced by schools are naturally due to the trend of digitalization caused by the rapid development of technology that pervades society. The phenomenon has also been acknowledged in the school world, and the OECD, among other organizations, has launched projects to spur the use of ICT applications in schools. Boosting the use of ICT in instruction has become an essential goal in education policy, to such an extent that countries are competing to rank high in the use of ICT in teaching. However, questions about the effects of digitalization and the benefits of ICT applications for learning processes have also been raised by the recent OECD report entitled *Student, Computer,*

Learning, Making Connections which has awakened widespread attention. The report shows that "despite the pervasiveness of information and communication technologies (ICT) in our daily lives, these technologies have not yet been as widely adopted in formal education. And where they are used in the classroom, their impact on student performance is mixed, at best" (OECD, 2015, p. 3). Countries that have invested heavily in information and communication technologies for education have seen no noticeable improvement in their learning results.

This spurs the question why ICT innovations and their applications for teaching do not appear to meet expectations. The report finds: "One interpretation of all this is that building deep, conceptual understanding and higher-order thinking requires intensive teacher-student interactions, and technology sometimes distracts from this valuable human engagement. Another interpretation is that we have not yet become good enough at the kind of pedagogies that make the most of technology; that adding the 21st century technologies to 20th century teaching practices will just dilute the effectiveness of teaching" (OECD, 2015, p. 3).

A third interpretation – one not presented in the OECD report – appears, however, to be more credible than the ones above: namely, that ICT projects are based on erroneous presumptions of the nature of learning processes. Paul A. Kirschner and Jeroen J. G. van Merrienboer (2013) have called them 'the urban legends' of education. The authors identify three legends in modern discussion: (1) the belief in the birth of a so-called new 'diginative' generation with a unique capacity for 'digital learning', (2) the belief that a student has a specific learning style, based on which the teaching and learning situations should be organized, and (3) the belief that the learner is self-regulated, a 'self-educator' who needs to be given maximum control over his her own learning process.

The main content of these legends in terms of learning theory is the blind trust of the technological enthusiasts in the capabilities and abilities of the 'new digitally native generation' as self-regulated learners to construct meaningful knowledge out of the flood of information coming through the digital channels. This means an ability to perform simultaneously tasks requiring high-order cognitive knowledge formation processes, mastery of technologies, skills of communication in the channels of digital environments, and application of digital materials to contexts of learning. "These assumptions are all grounded – at least partly – in the widespread belief that children are highly effective at managing their own interactions with the technological world and should be trusted to be in control of these interactions" (ibid., p. 170).

This involves the pedagogical viewpoint that the learning processes of digital natives should not be guided by traditional means of teaching, because the digital natives know best what their own learning styles are. They know how to use, in a self-regulated manner, technological applications and evaluate their learning, and they also know how to develop their metacognitive skills: "These self-educators can self-regulate and self-direct their own learning, seeking, finding, and making use of all of the information sources that are freely available to them" (ibid., p. 176.). According

to Kirchner and Merrienboer, there is no empirical evidence to support these ideas. Instead, the picture of digitally-native learners as conveyed by some studies is more or less the opposite: they are not critical problem solvers, as they prefer to trust in knowledge that is quick to find. They are information consumers, not producers of new knowledge. The digital legend has, however, been widely approved among political decision-makers, educational politicians, school reformers, and often educational researchers as well.[3] In other words, the breakthrough of digitalization involves standpoints on education through which large-scale projects to reform the school are being directed, but they are more based on beliefs and myths than on scientific knowledge and evidence with a solid basis.

Moreover, one possible reason that makes *digitalization* a tempting option for school reformers, especially in dire economic times, has to do with the costs of educational production. The production of education can be modelled either as a labor-intensive or capital-intensive process (see Timmermann's article in this volume). Naturally, the choice between these alternatives has an impact to the costs of the educational production. When, for instance, the production of education is understood as a labor-intensive process, the notion of "buying teacher time" becomes prominent; on the other hand, education defined as a capital-intensive process emphasizes the idea of investing in technological solutions rather than in teacher's time. How is the educational production process modelled is therefore of some importance from the pedagogical point of view. More precisely, these basic alternatives include also different pedagogical conceptions: a greater emphasis on technology invites trust in the self-activity or the self-regulation of the learner; a greater emphasis on "teacher time" invites a corresponding trust in a teacher's impact on the learners' learning outcomes.

As the increasing interest in the pedagogical potential of information and communication technologies and digital media suggests, the recent tendency might be towards the capital-intensive model of educational production. Why this could be seen as a tempting option is that the costs of the capital-intensive production of education are lower than labor-intensive production and, moreover, teachers' salaries cannot be easily controlled by educational policy makers because of labor legislation and union activity. However, when evaluating the chosen production model or the usefulness of alternative pedagogical interventions, more is needed than merely the identification of the costs of the educational production, or, to be more precise, the identification of the effects of the production (e.g. learning outcomes) must be taken into account. Consequently, the desirability of the chosen pedagogical intervention must be evaluated not solely on the basis of its costs but on the basis of its cost-effectiveness ratio. From the economic point of view one may ask: Are pedagogical interventions based on new technologies, regardless of their possible lower costs compared to the labor intensive pedagogical interventions,

necessarily the solution to the fundamental questions relating to the educational production?

The fundamental question is what digitalization is understood to mean in the context of school and in what way it should be formed as part of schoolwork. Obviously, the school institution cannot isolate itself from the development of modernization in the rest of society. An essential issue from the viewpoint of schoolwork is how digitalization and the use of ICT are seen in relation to the subject being studied, i.e. the contents and specific competence requirements in the various subjects – such as mathematics, physics, history, mother tongue, etc. It is a risk of the current school reforms that – in addition to being apparently based on erroneous assumptions in terms of learning – the modernization of the learning environments, digitalization and ICT are seen as a master key for solving the problems of teaching and learning, irrespective of content. The main principles and goals for curriculum work and projects for the development of teaching have been set in '21st century skills' (including ICT skills) as *general* abilities needed in the future world that can be transformed for various contexts. As important as these general skills are, when they are used as goals to guide school reforms they steer development away from the contents of teaching and learning to their provisions, from knowing the substance to the tools, communication skills, ICT skills, etc. We can call this phenomenon a *loss of substance* in pedagogy: skills, so-called 'key competences' have been determined as targets for pedagogical development, but their connection with the substance to be studied has been lost. It is natural that this awakens a concern among the teachers about lower student performance. The situation seems paradoxical: international assessments of learning results (such as PISA) rank the educational systems of different countries based on their learning outcomes in the various subjects – such as mathematics, natural sciences, literacy – but the recommendations for the development of educational systems apply to the students' general civic skills.

As mentioned in the opening article of this book, the contributors are not trying to give firm answers about the role and functions of the school as a pedagogical institution. The reason is obvious: definite answers cannot be found. Instead, as the history of the modern pedagogical institutions has made amply clear, the societal role and the functions of school has been under continuous debate and redefinition and – as perhaps the articles of this book have shown – the debate will continue into the future. Naturally this means that the critical debate concerning the role and the function of the school and the critical evaluation of contemporary educational policy trends is of vital importance. Inevitably, the debate has also crucial importance for the reformation and redefinition of the future society. If this book manages to stimulate the contemporary discussion – for example by highlighting some basic tensions between school and society and controversial nature of some contemporary pedagogical conceptions and educational policy trends – then the aim of the book is fulfilled.

NOTES

[1] From the historical perspective, the solid connection between the school reforms and political social development is a phenomenon that is part of the 'basic logic' of modernization development. On the other hand, it can also be shown that political social turns or ideological crises have occasionally determined the direction of school reforms in an exceptionally powerful way: in the early 20th century, John Dewey wanted to make the school a "society in miniature" that would show the way to a more comprehensive 'project of a democratic society', the shock caused by the Soviet Union with the Sputnik in the late 1950's immediately led to a reform of school legislation and massive curriculum reforms in the United States, the European Union has obligated its member states to reform their educational systems in the name of economic integration, and so on.

[2] Levin's article in this volume does not follow this logic. Instead of advocating the primary importance of cognitive skills measured in standardized tests and the reduction of school years, Levin emphasizes the importance of the non-measurable outcomes of education and the addition of school years and, thus, suggests raising public investment in education (in American context).

[3] A concrete example of this is offered by Finland, which has been reaping international fame owing to its PISA success. In its 2015 program, the Finnish Government determined the policy of "new pedagogy" for basic education as follows (Hallitusohjelma, 2015, p. 17): "The goal is for Finland to develop into an internationally interesting *laboratory of new pedagogy and digital learning* (emphasis added by author)." (Hallituksen toimintasuunnitelma, 2015, p. 26)". Aulis Pitkälä, Director General of the National Board of Education, emphasized in a recently published TV interview that new pedagogy means a shift from teaching to learning and a change in the teacher's role from teaching to other functions.

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(AERA Outstanding Book Award 2012), *Pestalozzi and the Educationalization of the World* (Palgrave Pivot 2013), *Accountability: Antecedents, Power, and Processes* (special issue of "Teachers College Record", co-edited with Heinz-Dieter Meyer), and *Trajectories in the Development of Modern School Systems: Between the National and the Global* (Routledge 2015, co-edited with Thomas Lenz).