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### ***The Concept of Child before Progressive Education***

Children cannot be “discovered”—they have always existed. Nevertheless, one can speak of a “pedagogical discovery of the child.” Prior to the eighteenth century, children received little attention in society and were considered, if anything, an object to be schooled. They were of interest to religion and the church, to the family as labor power, and to the social class to which they belonged from birth, but they were not considered in their own right or on their own terms. The resulting neglect of children’s education is clearly demonstrated by two indicators: the level of literacy, and the legal status of the child.

In the European Middle Ages, only the Jews could claim a high level of literacy, since the boys had to learn to read and write Hebrew to understand the Torah. As late as the early eighteenth century, two-thirds of the French population was still illiterate and could neither read nor write. Even in the mid-nineteenth century, one-third of all English men and almost half of English women had to sign official documents such as marriage and baptism certificates with an “X” because they were illiterate. The first law mandating compulsory education in England and Wales was passed in 1870. Before that time, the government invested nothing in public education. At the time of the American Revolution, however, 90 percent of the population of New England was literate because of the instruction provided by Puritan churches.

These patterns of literacy mirrored the legal situation of children. Since the Roman Empire, children had been subordinate to their fathers. Only in the nineteenth century were children’s independent legal rights even discussed, and in the same century, the first child protection laws were passed. Up to then, children were considered dependent and were understood in a passive sense, both legally and educationally. They had to do whatever they were told to do by those with authority over them. Into the fourth century A.D., the Roman *pater familias* had the legal right to throw sick or weak children out of the home and thus abandon them to die. Even after the Christian Emperor’s prohibition of this practice, abandonment of children remained widespread. In the Middle Ages, it affected girls in particular. And the expression “childrearing,” which emerged with the Reformation, referred primarily to *corporal punishment*.

In 1781, the English writer Anna Laetitia Barbauld published her book *Hymns in Prose for Children*,<sup>1</sup> which had a lasting impact on the image of the child as an active, self-directed learner. Since the Reformation—as noted at the start of the lecture—the Catechism<sup>2</sup> was the focus of Christian religious teaching. In this learning context, children were passive and had to memorize predefined answers to questions they had not even asked.

- Learning success was measured by:
- Whether and how well the children were able to recite the answers to the Catechism.
- Independent thought and questions were not required and were even punished.

English nonconformist and songwriter Isaac Watts presented a different view on this subject in his “Discourse on the Education of Children and Youth,” published posthumously in 1754.<sup>3</sup> In it, the concept of education is linked to knowledge and understanding. He argues that children are capable of learning anything in principle, but they must be given an education because they come into the world without knowledge, and remain coarse (“brute”) if not given instruction [cf. Watts I., 1832, pp. 263-264].

The urgency of cultivating understanding is expressed as follows:

“All our ... powers of nature, such as the will and the various affections, the senses, the appetites, and the limbs, would become wild instruments of madness and mischief, if they are not governed by the understanding; and the understanding itself would run into a thousand errors, dreadful and pernicious, and would employ all the other powers in mischief and madness, if it hath not the happiness to be instructed in the things of God and men.” [Watts I., 1832, p. 264].

Children should read but not “cram.” What they read should amaze them, and their books should be appropriate to them. On the other hand, the education of the mind requires constant practice, indeed “from their early years (on)” [Watts I., 1832, p. 269]. Children should also be trained in the art of self-governance, that is, they should learn to think for themselves and to use their own intellect to whatever extent possible [cf. Watts I., 1832, p. 275]. Those expected to learn what they do not understand—such as Latin or Greek for small children—will quickly forget everything that the school intended to teach [cf. Watts I., 1832,

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<sup>1</sup> Barbauld, A. L., 1781. *Hymns in Prose for Children*. London: J. Johnson. The title makes reference to Isaac Watts.

<sup>2</sup> Written forms of religious teaching, referred to as “Catechism” existed since the early Middle Ages. In the Reformation these became the core instrument of religious instruction.

<sup>3</sup> *A Discourse on the Education and Youth* [Watts I., 1832, p. 262-336].

pp. 289-290]. As a general maxim, “Children should be treated with great reverence” [Watts I., 1832, p. 299].

Anna Barbauld’s hymns are in line with these maxims. They take children and their experiential world seriously, based on the observation that this world has to be experienced and shaped by the children themselves, and is not simply given. Creation cannot be understood through the Catechism alone.

- In the Hymns, the children learn that they are not too young to praise God, and they learn that their fantasy world has a place within creation.
- The Children discover the world, and with it, God—without being subjected to a Catechism.
- They are not interrogated about their faith in an authoritarian manner, but are allowed to ask questions themselves.

The six Hymns refer to the “child of reason” that is, a child who can use her own perspective to understand the world she experiences. She must open her eyes to recognize God’s creation. She must go out into this world, and when she *sees* and *observes*, she will also recognize the greatness of God and the beauty of his creation. The child is self-aware and needs no instructions [cf. Barbauld A., 1781, pp. 36ff.].

Anna Barbauld was raised in a Presbyterian household and taught Latin and Greek as well as modern languages and natural sciences by her father, John Aikin,<sup>4</sup> the Director of the Kibworth Academy in Leicestershire. The congregation in Harcourt was a center of the English Dissenters movement, which arose after the end of the English Commonwealth. The term “Dissenters” was broadly attributed to various religious groups that separated from the Church of England. Almost all were Calvinists.

- The Dissenters included not only Puritans but also Baptists and Presbyterians as well as Congregationalists,
- That is, the Anabaptists, the Scottish Calvinists with the Constitution of Elders and the movement of the local churches, which equated the individual congregation with the Christian church.
- At the start of the eighteenth century, approximately 6 percent of the English population were Dissenters, who formed a small, highly educated minority.

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<sup>4</sup> John Aikin (1713-1780) was a recognized classical philologist and theologian. The Aikin family came originally from Scotland.

The Academy in Kibworth was founded in 1715 by John Jennings<sup>5</sup> and attracted leaders of the Dissenter movement like Philipp Doddridge, who studied there starting in 1719. The education prepared students for the ministry, lasted four years, and in addition to theology, covered areas of natural sciences that were not yet taught even at Oxford or Cambridge.

In 1758, John Aikin became a tutor in Classical Languages at the nonconformist Academy of Warrington. The Academy had been founded a year before this; it remained open until 1786 and was an independent academic center like many other academies of this kind. Since the sons of Dissenter families were not allowed to study, the Dissenters founded their own schools, which became a nucleus for the English Enlightenment. The first of these schools was opened in March 1770 in a village by the name of Rathmill near Giggleswick in Yorkshire; its founder was Reverend Richard Frankland. He directed the school for 33 years and educated several hundred students, many of whom later joined the elite of the Dissenters [cf. Brown E.E, 1905/1969, p. 161ff.].

Joseph Priestley was offered a teaching position in Warrington in 1761. He took the post over from John Aikin, who became a tutor of religious studies. Priestley remained at the academy for six years, where he formed a close friendship with Anna Laetitia Aikin. Priestley left the academy in 1767 and became a minister at the Mill Hill Chapel in Leeds. He was not only a theologian but also one of the most widely known natural scientists of the eighteenth century who made a name for himself through his studies of electricity and oxygen. Priestley was also one of the pioneers of natural science education in England and later also in the United States. It was he who developed the theory of “liberal education,” which encompassed “literary and scientific excellence” [cf. Priestley J., 1794, p. VII - XXII].

Priestley encouraged Anna Barbauld to begin writing. His influence and that of her father, John Aiken, contributed to her strong interest in education, which she developed in conjunction with her own pedagogical theories. Before the *Hymns*, Anna Barbauld had already published *Lessons for Children*,<sup>6</sup> which explained how a mother could instruct her son, starting in the second year of his life by considering his innate capacities for learning and responding to his evolving needs. In doing so, she only has to keep in mind what is “child-appropriate.” The lessons consist of observations and requests that are communicated to the child in simple sentences. Another innovation was the use of large type with wide spaces between the words,<sup>7</sup> allowing the child to read easily and to follow the presentation. Many of the texts begin with monosyllabic words and then move on to multisyllabic words.

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<sup>5</sup> John Jennings was Director of the Academy up to 1722.

<sup>6</sup> In 1778, *Lessons for Children of Two to Three Years Old* was published, and *Lessons for Children Three Years Old* appeared in June 1778, followed in 1779 by *Lessons for Children Four Years Old*.

<sup>7</sup> There were antecedents to this, for example, *Tommy Thumb's Pretty Song Book* (London 1744). German Children's Bibles also had this didactic form—for example, the *Curieuse Bilder-Bibel* (Nuremberg 1749).

- The children reading and listening to the book were addressed directly, such that the “lesson” became an entertaining activity that the adult engaged in with them.
- Through it, they experienced not only natural phenomena like the moon or the sun, but also the entirety of creation including human society.
- The precondition is that all these themes are already part of the children’s experience—they should relate to the child’s perceptual world, and be linked to questions that children ask or that can be formulated for them.

The lessons give voice to the child’s perceptions, but this can only succeed when the child feels stimulated and takes an active interest in what he perceives and experiences. Thus the child is not simply “lectured to” but also given a new role in the didactic relationship. The mother initiates the learning process, but this only works when the child is taken seriously in the context of its own development.

An example from the first volume, which is for two- to three-year-olds, is the call for children to engage in self-directed activity. It goes like this:

Charles, what are eyes for?  
 To see with.  
 What are ears for?  
 To hear with.  
 What is tongue for?  
 To talk with.  
 What are teeth for?  
 To eat with.  
 What is nose for?  
 To smell with.  
 What are legs for?  
 To walk with.  
 Then do not make Mamma  
 carry you. Walk yourself.  
 [Lessons 1801, Part I, pp. 25-26]

In the second volume for three-year-olds, there is a lesson illustrating the difference between humans and animals. Simple exercises are also provided to teach categorizing and counting. The child’s fingers are the starting point:

How many fingers have  
 you got, little boy?  
 Here are four fingers on  
 this hand; and what is this?

Thumb. Four fingers and  
 Thumb that makes five. And  
 how many on the other hand.  
 There are five too.

What is this?  
 This is the right hand.  
 And this? This is  
 the left hand.  
 How many toes have  
 you got? Let us count.  
 Five upon this foot, and  
 five upon this foot.  
 Five and five makes ten,  
 Ten fingers and ten toes.

How many legs have you?  
 Here is one, and here is an-  
 other. Charles has two legs.  
 How many legs has a horse?  
 A horse has four legs.  
 And how many has a dog?  
 Four; and a cow has four;  
 and a sheep has four; and  
 puss has four legs.

And how many legs have  
 the chickens?  
 Go and look.  
 The chickens have only  
 two legs.  
 And the linnets, and the  
 robins, and all the birds, have  
 only two legs.

But I will tell you what  
 birds have got; they have  
 got wings to fly with, and  
 they fly very high in the air.

Charles has no wings.  
 No, because Charles is not  
 a bird.  
 [Lessons 1801, Part II, pp. 41-45]

The *Lessons* were published in four volumes in the years 1778 and 1779 and were a major innovation in Anglo-Saxon children's literature because they assumed an active child who is able to listen, understand, and act independently. Anna Barbauld's *Lessons for Chil-*

*dren* was widely read throughout the entire nineteenth century, especially in the United States, and it is no exaggeration to associate the emergence of the “modern child”—understood as both a public image and a pedagogical expectation—with this publication [cf. O’Malley A., 2003]. The child in the *Lessons*—“little boy Charles”—really did exist: he was Anna Barbauld’s nephew. “Little Charles” became a stock figure in writings for children and was mentioned in many childhood biographies of the nineteenth century.

In 1773, Anna Barbauld published her own theory of education, which in itself was remarkable. Her theory assumes that the influence parents and teachers can have on children is limited. It is external circumstances that have the dominant impact on education. The kernel of this theory lies in the irreversibility of education, and is expressed as follows:

“This education goes on at every instant of time; it goes on like time; you can neither stop it nor turn its course” [Barbauld A., 1773, p. 307].

Children’s habits and tastes are formed in the particular situation at hand and are not simply taken over from the parents. Parents may want to bring up their children according to didactic principles, but changing circumstances can prevent a consistent practice from developing [cf. Barbauld A., 1773, p. 309]. Often, such principles are based merely on “inconsistent expectations” [cf. Barbauld A., 1773, p. 310]. There are no “direct precepts” in education or guiding standards or ready-made prescriptions to direct the adults in their actions. Conversely, children understand that the adults’ actions are rooted in didactic intentions [cf. Barbauld A., 1773, p. 311], and the children judge their morality based on what they do and not on how the adults instruct them to behave.

“He knows that, in the common intercourses of life, you tell a thousand falsehoods. But these are necessary lies on important occasions” [Barbauld A., 1773, p. 311].

Keeping children under strict surveillance or instilling fears of possible punishment in them produce only deceptiveness [cf. Barbauld A., 1773, pp. 311-12]. And furthermore, children also see through the façade that adults strive to put on for them.

“Children have almost an intuitive discernment between the maxims you bring forward for their use, and those by which you direct your own conduct. Be as cunning as you will, they are always more cunning than you” [Barbauld A., 1773, p. 312].

Barbauld’s theory thus takes children seriously and does not project anything onto them that corresponds solely to adult ideals. Older children are able to discern adult intentions, and no educational theory can change anything about that.

Education is complicated and expensive [cf. Barbauld A., 1773, p. 314] and can only ever be an attempt, not a guarantee of any desired outcome. Children are themselves active counterparts in education, who influence and can also manipulate the actions of educators. When a child is clever, the adults repeat *the child's* observations and think they are their own [cf. Barbauld A., 1773, p. 316]. The child can also elude the adults' educational plans. Ideally, "education" should mean nothing more than the child's participation in the adult world [cf. Barbauld A., 1773, p. 318], which requires that children be able to explore this world and draw their own conclusions.

Barbauld maintains that the ambitions of adults often turn education into a kind of "over-culture" that can only be created with great didactic effort. In 1773, she asked this of her readers:

"Do not you see how seldom this over culture produces its effect, and how many shining and excellent characters start up every day, from the bosom of obscurity, with scarcely any care at all?" [Barbauld A., 1773, p. 318].

Anna Barbauld also discusses the frequently raised objection to this pragmatic view of education, and refutes it:

"Are children then to be neglected? Surely not: but having given them the instruction and accomplishments which their situation in life requires, let us reject superfluous solicitude, and trust that their characters will form themselves from the spontaneous influence of good examples, and circumstances which impel them to useful action" [Barbauld A., 1773, pp. 318-319].

In a later essay, "What is Education?" published in the London *Monthly Magazine* in March 1798, Anna Barbauld expounded on the "education of events," which would be able to correct everything that went wrong over the course of life if a person lived long enough: "Faded beauty, humbled self-consequence, disappointed ambition, loss of fortune" [Barbauld A.L., 2002, p. 332]. The way parents interact with children does not define the course of the children's lives—if only because parents cannot give more attention than they are able to receive [cf. Barbauld, A.L., 2002, p. 324]. And while one can read educational theories like Rousseau's *Émile*, "*imperious circumstances* forbid you the practice of it" [Barbauld A.L., 2002, p. 325].

The media, far more than theories, influenced the changes in education. The first publisher of children's books outside the sphere of religious education was John Newbury, who



opened a bookshop in London in 1743. One year later, *A Little Pretty Pocket-Book* was published, making Newbury famous. The book was designed to both teach and entertain the fictional characters of “Little Master Tommy” and “Pretty Miss Polly,” a boy and girl who were supposed to learn to be good children. The book instructs child readers in such a way that they gain enjoyment from learning. The motto of the book, “instruction with delight,” was an idea that would have a far-reaching impact—and also appeared in the first American edition, published in Worcester, Massachusetts, in 1787.

From a didactic perspective, the book was an innovation: the alphabet was taught with the help of pictures and rhymes. The pictures show children’s games, each with a capital and a lower-case letter. At the top of each page were the letters, and under them, the picture. Below the description of the game in short verses, each page ends with a moral and a rule of life, one verse for the capital and one for the lower-case letter. First comes the capital, then the lower-case letter.

For the letter “G”/ “g” it looks like this:

The great G Play.  
HOP, STEP, and JUMP.

Hop short and Step safe,  
To make your Jump long;  
This art oft has beat  
Th’efforts of the strong.

MORAL.  
This old maxim take T’embellish your Book:  
Think well ere you talk,  
And, ere you leap, look.

The little g Play.  
BOYS and GIRLS come out to Play.

After a sultry Summer’s Day,  
When the Moon shines, and  
Stars are gay;  
The Nymphs and Swains well pleas’d  
Advance,  
And spend the Ev’ning in a Dance.

RULE of LIFE.  
Reflect To-day upon the Last,  
And freely own thy Errours past.

The capital letters are illustrated again with short rhymes at the end of the alphabet to serve as a memory aid. *A Little Pretty Pocket-Book* also contains fables illustrating the letters. The book also does not fail to provide instruction in how to read and show respect to elders. The seasons are illustrated with a “poetical descriptions” for the children’s enjoyment. The children are also taught by means of selected, easily remembered sayings. Finally, significant space is given over to etiquette—rules of proper behavior at home, at the dinner table, in school, and finally, among other children [cf. *A Little Pretty Pocket-Book* 1787].

In June 1802, the first magazine dealing exclusively with the growing body of children’s literature and education was published in England. *The Guardian of Education* (1802-1806) was first edited by Sarah Trimmer, who was closely linked with the Sunday School movement and had also founded schools herself. Sunday Schools were conceived for the religious education of the poor outside the Anglican Church.<sup>8</sup> It was Sarah Trimmer who first helped to define what was considered “child-appropriate,” that is, what capabilities children must possess in order to spark learning and ensure successful outcomes.<sup>9</sup> Children’s literature must proceed from the following criterion: literature is only appropriate for children when the child is entertained and when the child arrives at its own questions. Children should not passively assimilate knowledge but should learn and be active *themselves*.

The priority of learning in children’s upbringing is described in a story from Sarah Trimmer's children's book *Leading-Strings to Knowledge*, first published as *Easy Lessons* in 1786. “Easy Lessons” are those that can be learned without difficulty and retained for the long term. Children learn best, as the premise goes, when they learn effortlessly—when they are not hampered by tasks that are imposed on them by adults and mean little to them personally.

STORY VI:  
WHAT YOU KNOW, AND DO NOT KNOW.

Look at those two dogs. The  
old one brings the ball to me in a  
moment; the young one does not  
know how. He must be taught.

I can put your dress in a proper  
shape. You would not know how  
to begin; you would spoil it. But  
you will learn. John digs in the  
garden, and knows when to put the

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<sup>8</sup> The first Sunday School was founded in 1769 in Buckinghamshire, England. In 1831, in England alone, the movement had reached more than 1,250,000 students.

<sup>9</sup> Trimmer, S., 1780. *An Easy Introduction to the Knowledge of Nature, and Reading the Holy Scripture, Adapted to the Capacities of Children* (London). Through the influence of the “Society for the Propagation of Christian Knowledge” the book sold more than 750,000 copies up to 1880.

seed in the ground. You cannot  
 tell if it should be in the winter  
 or in the summer. Try to find it out.  
 [Trimmer S., 1859, p. 22]

Here we read the sentence: “The sense of children grows with them” [Trimmer S., 1859, p. 18]. The small child still cannot do much alone [Trimmer S., 1859, p. 24], but it grows and becomes more and more independent with each step. “You say, you do not know how to think. Yes, you do, a little” [Trimmer S., 1859, p. 27]. When a child does something bad, then it is because it does not know better [cf. Trimmer S., 1859, p. 29]. It can be taught what is good at any time, and is not bad by nature. It is not sin that defines the child, but rather the child’s innocence, and thus its potential.

The aim of learning, however, is always to serve the Christian faith. The child should be “active” for the faith; Sarah Trimmer gave the Christian religion in particular a didactic form in which memorization was still a normal form of learning. Fixed rules were developed that prescribe exactly how learning must take place in order to produce successful results [cf. Trimmer S., 1812, p. 210ff.]. The objective is to provide a “ladder of learning” whose ultimate goal is religious faith,<sup>10</sup> and not a free activity chosen autonomously by children themselves. This changed with the Enlightenment literature that began to appear in the mid-eighteenth century.

“Tom Telescope” was the pseudonym of an author whose 1761 book in its first edition bore the unusual title:

THE  
 NEWTONIAN SYSTEM  
 OF  
 PHILOSOPHY  
 Adapted to the Capacities of young GEN-  
 TLEMEN and LADIES,  
 B E I N G  
 The Substance of SIX LECTURES read to the  
 LILLIPUTIAN SOCIETY.

Jonathan Swift had published his 1726 novel *Gulliver’s Travels* under a pseudonym as well.<sup>11</sup> An illustration in the first volume shows where the island of the Lilliputians was found in the South Indian Ocean, and also informs the reader that it was discovered in 1690. These strategies gave the literary fiction a sense of realism. The expression “Lilliputians” was used widely in the eighteenth century to refer to people of small stature—thus, children as well.

<sup>10</sup> *The Ladder to Learning* was a collection of fables published by Sarah Trimmer around 1771.

<sup>11</sup> *Travels into Several Remote Nations of the World*. In Four Parts. By Lemuel Gulliver, first a Surgeon and then a Captain of Several Ships (Vol. I/II, London 1726). A four-volume edition was published in 1735.

The “Lilliputian Society” is therefore a children’s society, probably founded by the author Oliver Goldsmith, who was under contract to John Newbury. He is likely the author behind the pseudonym “Tom Telescope.”

The fourth edition of *The Newtonian System* was published in 1770.<sup>12</sup> The frontispiece of this edition shows a striking picture: a group of children—boys and girls—are listening to a “Lesson on Material and Movement,” that is, a class on Newton’s physics. The children are following the lecture raptly, yet they also appear skeptical. A larger boy is speaking and a smaller boy is even stepping over the table with stick, as if he does not want to believe what he is hearing.

The lecturer is a man wearing a robe and lifting his hand in a declamatory fashion, although he apparently has not convinced all of the children of what he is saying. The children themselves had invited the young researcher Tom Telescope there to induct them into the secrets of the new science. Thus—in this fictional scene—they are taking their education into their own hands. Correspondingly, the book is not designed just to teach but also to entertain. Learning should give pleasure [cf. Secord J.A., 1985].

Natural science and Isaac Newton’s mechanics in particular were popular in the eighteenth century. Public interest in the subject had increased since the first scientific journals were published,<sup>13</sup> and had been stimulated as well by popular addresses. Itinerant lecturers disseminated the new scientific findings even at county fairs, where experiments and demonstrations created a public sensation. Presentations on electricity were greeted with special interest, after the first condenser was invented in 1745 with the “Leyden jar.” Modern science was therefore not only taught in schools but also in local markets and fairs. It was also here that the form of the didactic experiment was developed [cf. Metz D., and Stinner A., 2006].

Instruction in Newton’s physics designed especially for children appeared in 1751 in the *Magasin des Enfants*,<sup>14</sup> and Francesco Algarotti’s book was published in English translation as *Sir Isaac Newton’s Philosophy Explained to Ladies* in London as early as 1739.<sup>15</sup> The new sciences not only spread through books aimed at particular target groups, they were also part

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<sup>12</sup> At least eleven published editions have been verified up to 1800; the total circulation is estimated at 30,000 copies.

<sup>13</sup> *Le journal des sçavans*, founded by the writer Denis de Sallo (1626-1669) in Paris, was first published as a twelve-page edition on January 5, 1665. The journal existed up to 1792. On 6 March 1665, the *Philosophical Transactions of the Royal Society* were first published in London.

<sup>14</sup> The publisher of the magazine was Jeanne-Marie Le Prince Beaumont (1711-1780). The four-volume *Magasin des enfants* was part of an ongoing collection of stories and treatises about education that were published between 1750 and 1780 in forty volumes. Jeanne-Marie Le Prince Beaumont emigrated to London in 1745 after a failed marriage and returned to Paris in 1762. The *Magasin des enfants* published in 1756 also included a version of *The Beauty and the Beast*.

<sup>15</sup> Francesco Albarotti (1712-1764) wrote *Neutoniasmo per le dame*, a treatise about Newton’s optics, in the year 1738. The English translator was the writer Elizabeth Carter (1717-1806). The treatise was a great publishing success throughout all of Europe.

of carefully staged public spectacles that were also open to children. Demonstrations of lightning conductors or experiments with air pumps were sensations not only because they promised to provide new insights but also because of their potentially high practical value. The expression “practical” thus took on new meaning; it was linked with experimental learning and constant advances in knowledge.

The model for the frontispiece of *The Newtonian System of Philosophy* was a famous picture painted by Joseph Wright of Derby in 1768. The painting is called “An Experiment on a Bird in an Airpump,” and that is precisely what it depicts. An elegant gathering of curious onlookers, including children, attentively watches a scientific experiment demonstrating natural laws. The group has come together for no other purpose than to be taught by a scientific authority via demonstration. The lesson is invested with fascination and a certain horror, from which the children are not excluded. They follow, in their own way, the same thing that the adults are observing.

The experiment itself can be traced back to the founder of modern chemistry, Robert Boyle, and illustrates what happens when all the air is removed from a living being—in this case, a white cockatoo. The process is explained and commented upon by a traveling scientist. Two children, a boy and a girl, are part of the group. They are simultaneously curious and skeptical. The group as a whole is spellbound, and the overriding question is whether the experiment will actually be carried to its final conclusion. In this respect, what we see is a drama whose conclusion remains unknown. The children’s presence there is treated as a matter of course, which corresponds in other respects to the bourgeois educational practices of that time.

These practices were also reflected in book production, which was expanding rapidly and taking on new forms. John Aikin, brother of Anna Barbauld, published *The Calendar of Nature. Designed for the Instruction and Entertainment of Young Persons* in 1785.<sup>16</sup> The two siblings also collaborated in writing the six-volume collection *Evenings at Home*, which was geared toward fostering a shared reading culture between children and adults. The individual volumes appeared between 1792 and 1796, and remained in print continuously until 1915, albeit in various editions [cf. Fyfe A., 2000, p. 455]. The stories were conceived to be read on thirty-one evenings, and related to diverse subjects in nature, the home, society, and economics, in addition to science. One fable even describes the relationships between two unequal siblings, “nature” and “education” [cf. Aikin J., Barbauld A., 1852, p. 230-232].

“Teach and Entertain” was the didactic maxim of Anglo-Saxon children’s literature in the first half of the nineteenth century, which was strongly oriented toward natural history subjects. These were seen, as writer Elizabeth Budden<sup>17</sup> described in 1814, as a “key to

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<sup>16</sup> The calendar shows the evolution of plants and is especially designed for children. John Aikin had been working with identification books since 1776 and here published them in calendar form.

<sup>17</sup> Maria Elizabeth Budden (born Halsey) (1780?-1832) published *Woman; or Minor Maxims. A Sketch, in Two Volumes* in 1818. In addition, she wrote manuals for living a happy life as well as historical novels such as *An*

knowledge,” and thus also as a promising market. One bestseller was *Tales about the Sun, Moon, and the Stars* by American publisher Samuel Goodrich, published in first edition in 1831. Its success among the bourgeois public inspired numerous imitators and in some cases led to rather peculiar outcomes. Around 1845, English mathematics teacher William Hardcastle published a catechism of astronomy especially for children.<sup>18</sup>

Charlotte Turner Smith, a well-known English novelist, wrote poetic discussions on natural history subjects in 1804 that were likewise directed toward children. The two volumes contained poems such as “To a Butterfly in a Window” or “The Robin’s Petition” but also prose pieces and pedagogical dialogues about appearances and phenomena in nature such as animals, landscapes, and the seasons.

- All of these works were addressed to young readers; the medium of instruction was the children’s own reading, and other activities were not envisioned.
- The children were addressed, entertained, and instructed; they were supposed to understand what they read, and to think further about it—but they were not to experiment with or discover the world *for themselves*.

The concept of a “practical education,” one that took place not only through books and classroom lessons but also through the children’s own activities, arose parallel to children’s literature itself. The idea goes back to the Irish large landowner and engineer Richard Lovell Edgeworth. As a young man, Edgeworth had been an ardent supporter of Jean-Jacques Rousseau and initially wanted to subject Rousseau’s theory of natural childrearing to a practical test. To this end, he traveled to Paris in 1771 to visit the French philosopher, but without apparent success. Rousseau had nothing to contribute on the subject of “practical education,” and the conversation thus became lost in a discussion of pedagogical principles.

One view that Edgeworth did not adopt from Rousseau was the latter’s admonition against books, which was as idiosyncratic as it was categorical. *Émile* receives one book during his childhood that he is allowed to read: Daniel Defoe’s *Robinson Crusoe*, because it teaches him about his own fundamental situation in the world [cf. Rousseau J.-J., 1969, p. 455]. In general, however, Rousseau warned that children should not be taught to take pleasure in reading; on the contrary, they should be advised against any advanced reading lessons, because books distort natural perception and thereby endanger education [cf. Rousseau J.-J., 1969, p. 454]. This was not the case for Edgeworth: in his view, a child *ought* to read and experience the world with his own sensibility, based on “his love of knowledge and his spirit of activity” [Edgeworth M., and Edgeworth R., 1801, p. 1].

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*Icelandic Tale* (2nd ed. 1825). In 1814 she published her most successful book, a dictionary written in the form of a dialog for children, entitled, *Key to Knowledge, or Things in Common Use Simply and Shortly Explained*. The book was run for a total of eighteen editions. The author was identified simply as “A Mother.”

<sup>18</sup> Hardcastle, W., 1845. *Catechism of Astronomy, and The Use of the Globes, Containing 648 Questions upon the Terrestrial and Celestial Globes, with Numerous Problems for Solution by Pupils*. London: Relfe & Fletcher.

The claim that education must be linked to things of practical relevance had already been made by Joseph Priestly in 1788. Students should be viewed as “novices”; lessons should prepare them for the world and therefore supply useful knowledge. [cf. Priestley J., 1788, p. XIX]. School, he said, must be related to “civil life” [Priestley J., 1788, p. 20] and not only to academic knowledge. The tendency of classical grammar schools to focus on the latter was the reason they had become a “common topic of ridicule” [Priestley J., 1788, p. 20]; they were not directed toward the “active life” [cf. Priestley J., 1788, p. XXI]. Education, in Priestly’s view, should aim to convey a coherent system of knowledge that serves practical objectives and prepares students for fields of practical activity such as law or trade [cf. Priestley J., 1788, p. XXIIIff]. Priestly argued that whoever reads a book and studies an academic subject must have the application of what is learned clearly in view, and should not engage in purely contemplative activities [cf. Priestley J., 1788, p. XXVII].

This was not an isolated opinion. Erasmus Darwin, the grandfather of the founder of evolutionary theory, also promoted the theory that good education must produce practical outcomes, and not exhaust itself in self-cultivation.<sup>19</sup> Darwin was a central figure in the English Enlightenment. He was a renowned physician who practiced in Lichfield near Birmingham and became a member of the Royal Society in London in 1761. Richard Edgeworth came to Lichfield in 1770 after having written to Erasmus Darwin by mail. It was from Darwin that Edgeworth picked up the idea of practical education, which was not an unusual perspective at that time.

The Scottish moral philosopher Dugald Stewart promoted similar theories of education.<sup>20</sup> Edgeworth was introduced to him by Erasmus Darwin, a service for which he expressed his thanks in a letter dated 18 December 1796 [cf. *Memoirs* 1844, p. 347f]. Stewart would refer to the concept of “practical education” in his final work, *Philosophy of the Active and Moral Powers* from 1828, by which point the concept was widely accepted as paradigmatic. Richard Edgeworth’s exploration of practical education began as a “family project” [Nash J., 2006, p. 56] carried out in his home and extensive estate, and had nothing to do with schools. Practical education emerged in and with the household economy, as Edgeworth developed and applied different forms of practical learning with his own children.

The starting point for this type of learning was found in the problems and questions that the children posed or responded to spontaneously. Edgeworth’s second wife, Honora Sneyd, recorded what the children did, the questions they asked, and how they solved the problems. The resulting notes became the basis for a collection of texts on varied aspects of household learning. The collection was presented in 1780, in the same year that Honora

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<sup>19</sup> Such an idea applied equally to both sexes, as Darwin’s *Plan for the Conduct of Female Education in Boarding Schools*, published in 1797, shows.

<sup>20</sup> “A good education ... should be taken ... to unite habits of abstractions with habits of business” [Stewart D., 1855, p. 148].

Sneyd died. Her notes were published under the title, *Practical Education, Or, The History of Harry and Lucy*.<sup>21</sup> They recounted the experiences of a father and a mother with nine forms of learning in literary form. The two main figures, “Harry” and “Lucy,” are model children who describe how they learn and the discoveries they make.

In 1791, Richard Edgeworth began to draft a general theory of practical education based on these experiences. It was to be clearly distinguished from the usual practices of school instruction. His older daughter Marie Edgeworth, who was twenty-four years old at the time and would later become a celebrated writer, supported him in this endeavor. Both were members of the Lunar Society of Birmingham, a group of engineers, philosophers, writers, and inventors who all adhered to Enlightenment ideals and were interested in the practical application of experimental science. The society’s name dated from 1775,<sup>22</sup> when the members had met on full-moon nights, in order that they could find their way home from the nocturnal meetings. At that time, there was no other light at night than that of the moon.

Education was an important field of experimentation, which Richard and Maria Edgeworth understood to be a process of practical experience or “trails of dexterity and activity” [Edgeworth M., and Edgeworth R., 1801, p. 15]. In their view, observation, experimentation, and the sprit of invention guided education, which was conceived as a kind of research process.<sup>23</sup> It was in this context that the concept of “discovery learning” was first given a concise didactic form. In it, learning is based in dexterity and independent activity. The more actively children learn, the more enduring the skills they acquire. Skill comes from *doing*—a formula that would become a frequent point of reference in the years to come.

The same reasoning was used to explain the significance of playful learning in the experiential world of children. The Edgeworths maintained that young children learned in and through their own games, without necessarily needing any outside guidance. Their ideas for fostering playful learning included stories and even a toy store for learning about the household economy. Their learning materials included puzzles, interesting projects, and instructions for physical activities. Sports and play were seen as the primary vehicles for children’s experiences, which should be completely independent of dreary textbooks and modes of teaching that take no account of real learning. The principle of practical education was conceived with the children themselves as the starting point. Whatever promoted *their* learning was understood to be good and useful.

The question of how much freedom is possible in education and how much must be provided to have an influence on learning was not one answerable by theory, but only through practice. “Practice,” the authors reminded the reader, does not mean simply “exercise” but

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<sup>21</sup> Self-published in Lichfield.

<sup>22</sup> The Society was founded in 1765 and existed until 1813.

<sup>23</sup> This process is described in Maria Edgeworth’s *Notes, Containing Conversations and Anecdotes of Children* [cf. Edgeworth M., and Edgeworth R., 1801, Vol. II, pp. 301-333].



also “find out for yourself” [cf. Edgeworth M., and Edgeworth R., 1801, p. 34ff.]. Learning the alphabet can be entertaining for children and does not have to be an ordeal if they are allowed to first say letters and syllables to themselves and experiment with them before learning the correct form. [cf. Edgeworth M., and Edgeworth R., 1801, p. 44] But teaching is not the same thing as play; children should not be entertained continually. Rather, they should occupy themselves with meaningful work that they are able to accomplish with their own efforts [cf. Edgeworth M., and Edgeworth R., 1801, p. 46].

Instruction, which cannot begin early enough, is not fundamentally different from practical work. The authors state:

“The truth is, that useful knowledge cannot be obtained without labor; that attention long continued is laborious, but that without that labor nothing excellent can be accomplished. Excite a child to attend in earnest for a short time, his mind will be less fatigued, and his understanding more approved, than if he had exerted but half the energy twice as long: the degree of pain which he may have felt will be amply and properly compensated by his success; this will be not an arbitrary, variable award, but one within his own power, and that can be ascertained by his own feelings” [Edgeworth M., and Edgeworth R., 1801, p. 47].

Their approach assumes the perspective of the learner, who obtains validation through the success of his own work. The mode of activity is “learning a task” [cf. Edgeworth M., and Edgeworth R., 1801, p. 47] and the premise asserts that the application of knowledge is critical for the advancement of learning, not the amount of educational goods consumed [cf. Edgeworth M., and Edgeworth R., 1801, p. 311]. Of course, academic subjects such as grammar, geography, or arithmetic should be learned, too, but always in the mode of practical learning. Not surprisingly, the expression “active child” is used in this context [cf. Edgeworth M., and Edgeworth R., 1801, p. 87]. Education is successful when it is driven by a “playful, active child” [cf. Edgeworth M., and Edgeworth R., 1801, p. 187] rather than being conceived as teacher-centered and passive.

The basic premise of the two-volume *Practical Education*<sup>24</sup> is illustrated in Honora Sneyd’s notes. These often consist of conversations between older and younger siblings, which do not end with morals and admonitions but which rather open up new ways of solving problems. “I know how I can manage,” says the younger brother, as he is asked to answer the question of what causes a rainbow to form [cf. Edgeworth M., and Edgeworth R., 1801, p. 48-49]. He is interested in the problem and must find a solution; precisely this—curiosity—is crucial for the early cultivation of understanding.

“To fix the attention of children, or, in other words, to interest them, about those subjects to which we wish them to apply, must be our first object in the early cultivation of the understanding” [Edgeworth M., and Edgeworth R., 1801, p. 50].

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<sup>24</sup> The first edition was published by J. Johnson in London in 1798.

Children focus on the experience of learning situations, whose outcomes they themselves will have to generate. They are not instructed through abstractions but have to participate and think for themselves. Honora Sneyd recorded the following dialog between her husband and their five-year-old son, which illustrates the principle very clearly:

Father: Son, how many can you take from one?  
 Son: None.  
 Father: None! Think; can you take nothing from one?  
 Son: None, except that one.  
 Father: Except! Then you take one from one?  
 Son: Yes, that one.  
 Father: How many then can you take from one?  
 Son: One.  
 Father: Very true; but now, can you take two from one?  
 Son: Yes, if they were figures I could, with a rubber-out  
 [Edgeworth M., and Edgeworth R., 1801, p. 51].

The last answer is explained in the text. The son often wrote out sums using a black pencil, and erased them when his answers were incorrect. He called the rubber eraser “rubber-out,” a phrase that he had picked up and appropriated for his own use. The invention of the eraser is attributed to the English engineer Edward Nairne, who produced the first Indian rubber eraser in 1770. The practice of erasing, therefore, was very new when this conversation between Richard Edgeworth and his son was written down. Naturally, rubber erasers were also something found only in wealthy households.

The dialog continued as follows:

Father: Yes, you could; but now we will talk not about figures, we will talk of things. There may be one horse or two horses, one man or two men.  
 Son: Yes, or one coat or two coats.  
 Father: Yes, or one thing or two things, no matter what they are. Now, could you take two things from one thing?  
 Son: Yes, if there were three things, I could take away two things, and leave one.  
 His father took up a cake from the tea-table.  
 Father: Could I take two cakes from this one cake?  
 Son: You could take two pieces.  
 His father divided the cake in two halves, and held up each half so that the child might distinctively see them.  
 Father: What would you call these two pieces?  
 Son: Two cakes.  
 Father: No, not two cakes.  
 Son: Two biscuits.  
 Father: Holding up a whole biscuit: What is this?  
 Son: A thing to eat.  
 Father: Yes, but what would you call it?  
 Son: A biscuit.  
 His Father broke it into halves, and shewed one half.

Father: What would you call this?

Son: Was silent, and his sister was applied to, who answered, "Half a biscuit."

Father: Very well; that's all at present.

The father prudently stopped there, that he might not confuse the pupil's understanding.

[Edgeworth M., and Edgeworth R., 1801, p. 52].

Maria Edgeworth later wrote that her father was the first to have shown by example, and by the principles of his own practice, that education should be understood as Francis Bacon had understood science: using the experimental method and thus an open-ended process [cf. *Memoirs* 1844, p. 350ff].

- Over the course of the nineteenth century, the image of the child changed and, along with it, the expectations placed on educational methods and the goals they should serve.
- This process unfolded gradually and under the influence of very different media, authors, and advocacy groups that had generated their respective pedagogical concepts out of vague ideas or particular household experiments.
- It was not spawned by a specific overarching philosophy; rather, diverse experiences from very different places in a rapidly developing society played crucial roles in its emergence.

A driving force in this was the emergence of kindergarten education. The idea of starting children's education as early as possible was connected with that of founding an institution separate from and preceding elementary school. The underlying belief was that even young children should be educated—not in correct behavior or the manners of adults but in useful forms of play and work. Kindergartens were therefore not places for children to grow up wild and unregulated, but places of tutelage using special child-appropriate materials intended to create a structure for learning. Here, children were not only supposed to observe and to talk over what they discovered as the Edgeworths had promoted [cf. *Memoirs* 1844, p. 25], but were also to learn purposefully.

Children were viewed in terms of their potentials rather than their deficits. Kindergartens established more liberal forms of instruction, and schools, too, gradually acquired an appreciation for the unique characteristics of younger children. The idea of using stimulating classroom materials for instruction was not new. Richard and Maria Edgeworth had already written about of "employments for children" [cf. *Memoirs* 1844, p. 33], although they were referring to activities and learning opportunities for children that arise organically in daily life in the environment of bourgeois and aristocratic households. The garden is specifically mentioned in this context, and its importance is emphasized: "A garden is an excellent resource for children" [Memoirs 1844, p. 34].

The "child of the kindergarten" was conceived somewhat differently:

- Learning opportunities that arise in daily life should not determine learning, as they did in the Edgeworth household,
- But neither should a mechanical method of teaching.
- A specially designed learning environment for young children was conceived that would be clearly distinguished from school.
- The children should move about in small neighborhood groups, playing and learning according to a pedagogical program connected to a distinct institution.

The term “kindergarten” must be understood both symbolically and literally. The children were given an educational space specifically designed for them. It was distinct from school because the work was not with books but rather with play materials. Playing was guided, but with the only requirement that the children should be active and stimulated. The physical situation was designed so that children did not have to sit still and memorize like in a school. The teaching principles of the kindergarten were the conceptual basis for an educational movement that unfolded in the second half of the nineteenth century, primarily in the United States. Advocates of the movement were almost exclusively women, who also created for themselves a distinct educational vocation.

The first kindergarten in the United States was German-speaking, founded in 1857 by Margarethe Meyer-Schurz in Watertown, Wisconsin. Elizabeth Palmer Peabody opened the first English-speaking kindergarten in Boston in 1860, and Susan Blow organized the first kindergarten supported by public funds in St. Louis in 1873.<sup>25</sup> From these origins, an educational movement developed that remained influential until the end of the nineteenth century, particularly in large cities. The topic of early childhood education outside the family home with specially trained caregivers attracted a great deal of attention in public discourse and achieved astonishingly rapid popularity. The concept of the kindergarten, however, was anything but uniform at the outset, and only evolved *with* the movement itself.

Louisa Parsons Hopkins, supervisor of the Boston public schools, designated the activation of children’s learning the “spirit of the new education” [cf. Parsons Hopkins L., 1892]. She cited examples that ranged from the kindergarten to the manual training of youth. The principle thus became generalized; it no longer applied only to the earliest phases of education but rather to all phases. Active learning was also understood politically: school should serve as preparation for citizenship [cf. Parsons Hopkins L., 1892, p. 102ff.] and kindergarten was seen as the foundation for social education [cf. Parsons Hopkins L., 1892, p. 105f].

The curriculum, Hopkins asserted, had changed radically in the past ten years. It now served the active development of the child:

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<sup>25</sup> The “Des Peres-Kindergarten” was part of a school and had its own spacious building. It existed until 1935 and today is home to a school and kindergarten museum.

“The old idea that school education was primarily for the purpose of stocking the child’s mind with facts and rules has passed away, and the new idea that its purpose is the development of all the child’s powers has been brought to the front.”

[Parsons Hopkins L., 1892, p. 123].

With respect to the practice of the vast majority of schools, this description was certainly greatly exaggerated and was only true to a limited extent even in Boston, as we shall see. But the change and above all the *will* to change at the end of the nineteenth century, also on the part of the school authorities, were unmistakable. Moreover, mentalities were changing *as the* movement developed, which also had some remarkably effective spokespeople.

At the world exhibition in Philadelphia in 1876,<sup>26</sup> the kindergarten was given its own pavilion called the “Kindergarten Cottage,” where first public model kindergarten was exhibited. Here, on a raised stage, visitors could see for themselves how a group of boys and girls seated in a circle were taught by two kindergarten teachers. The exhibition in Fairmount Park was the first of its kind on American soil. Ruth Burritt led the presentation. She had been charged by the Froebel Society of Boston to illustrate the principles of kindergarten education three days per week through a vivid live demonstration. A group of orphaned children showed how playing, singing, movement, and Froebel toys were used in the kindergarten.<sup>27</sup>

The kindergarten concept was also a promising commercial innovation, for which there was a steadily increasing demand. From the foundations laid by the movement’s pioneers, an American institution was born. Around 1900, seven percent of all five-year-olds attended kindergarten; in 1922 it was 12 percent, and by 1964, over one-half of all children in this age group attended kindergarten. This steady growth in the movement was accompanied by increased theoretical reflection, emanating from a position that was described early on as that of the “child’s advocate.” The activist members of the movement, too, called themselves “advocates” [cf. Barnard H., 1890, p. 623] to underscore that they were engaged partisans who wanted to convince others of their cause.

An influential and representative example was the novelist Kate Douglas Wiggin, who published what was probably the first article on the rights of the child in August 1892 in *Scribner’s Magazine*. Wiggin came out of the kindergarten movement and was educated by the kindergarten pedagogue Emma Marwedel, originally from Hamburg. Marwedel had been brought to Los Angeles in 1876 by women’s right activist Caroline Severance<sup>28</sup> and estab-

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<sup>26</sup> The exhibition celebrated the centennial of the American Declaration of Independence. The exhibition opened on 10 May 1876, with over 186,000 visitors on the first day alone. The total number of visitors was estimated at ten million, 20 percent of the entire population of the United States.

<sup>27</sup> The eighteen orphan children came from the Home of the Friendless Children from Pennsylvania.

<sup>28</sup> Caroline Severance (1820-1912) was one of the co-founders of the American Woman Suffrage Association in 1869, which was organized to agitate for the women’s right to vote. This is the origin of the term “suffragette”

lished a kindergarten teaching school there. At that time, her student was still known as Kate Douglas Smith. In 1878, after completing her training, Smith opened the Silver Street Free Kindergarten in San Francisco for the children of workers, who could attend tuition-free. It was the first institution of its kind on the entire West Coast of the United States. The children came from the nearby ghetto known as “Tar Flat,” widely viewed as a chaotic and lawless part of town.

Wiggen’s article on “Children’s Rights” opens by asking whom the child belongs to— to its parents, to society, or to itself? The rights of the parents, the article maintains, are limitless, yet there are no standards at all defining the rights of the child [cf. Douglas Wiggin K., 1892, p. 242]. Society only intervenes when parents have committed brutal abuses. “But society does nothing, can do nothing, with the parent who injures the child’s soul, breaks his will, makes him grow up like a liar or a coward, murders his faith!” [Douglas Wiggin K., 1892, p. 243]. Parents whose sole response is to appeal to their “right” to do whatever they want with their child are branded by Wiggen as “impossible parents” [cf. Douglas Wiggin K., 1892, p. 243].

Every child has a right to a childhood that is appropriate to him or her. “There is no substitute for a genuine, free, serene, healthy, bread-and-butter childhood” [Douglas Wiggin K., 1892, p. 244]. The life of the adult can only be built on this foundation; the relatively free space of childhood is a precondition for such a life. “The child has a right to a place of his own, to things of his own, to surroundings which have some relation to his size, his desires, and his capabilities” [Douglas Wiggin K., 1892, p. 246]. This assumes that the adults do not believe that children are “too good,” or better than themselves. Children have the right to “expect an example,” but they also have a right to seek out their own path—which parents must learn to respect, although this is not included in the school curriculum [cf. Douglas Wiggin K., 1892, pp. 247-248].

In April 1899, John Dewey, in lectures for parents of the University Elementary School of Chicago, employed the famous metaphor of the “Copernican Revolution” in education, which points away from adult moral ideals and towards the child as a person. The metaphor was predicated on a century of intense public discussion around active and self-willed children, without which it could hardly have been credible. When the German Baroness Bertha von Marenholtz-Bülow, a key promoter of Froebel Education, visited the United States shortly before her death, she summed up her educational credo in a formula that is today attributed to John Dewey: “The children will be much happier and gayer if they are busy in joyous play or *learning through doing*” [Bülow B.v., 1900, p. 93]. The proper method of the kindergarten is “active practice” [cf. Bülow B.v., 1900, p. 94] and not the passive, teacher-directed learning typical in the schools of the time [cf. Bülow B.v., 1900, p. 95].

The popular magazine *The Century*, in its obituary for Bertha von Marenholz-Bülow, called the kindergarten movement “the most progressive educational movement on the Conti-

ment.”<sup>29</sup> But without the support of visible results and convincing arguments—without the process of open public discussion—this movement could hardly have come about. A revolution in such a fundamental area as that of personal beliefs does not arise suddenly and requires the continual reinforcement of its central arguments, which even then only are plausible when supported by good examples. Thus it is not the theory of the kindergarten that has been decisive, but its practices. The same goes for the “child-centered” forms of teaching in schools, which could only be only advanced by pointing to positive examples and experiences.

Without his contact with the kindergarten movement, Dewey’s metaphor would probably never have come about. He explained the “Copernican Change” in education like this: By focusing on the learning and the self-regulated activity of the child, the “new education” was on par with a radical turning point in history. The focus of the old education, according to Dewey, was on the teacher, the textbook—anywhere but on the child.

“On that basis there is not much to be said about the *life* of the child. A good deal might be said about the studying of the child, but the school is not the place where the child *lives*. Now the change which is coming into our education is the shifting center of gravity. It is a change, a revolution, not unlike that introduced by Copernicus when the astronomical center shifted from the earth to the sun. In this case the child becomes the sun about which the appliances of education revolve; he is the center about which they are organized.”<sup>30</sup>

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<sup>29</sup> A.H.P., 1893. A Friend of the Kindergarten. *The Century*. May. Vol. 46, No. 1: p. 157.

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