CHAPTER 4

THE HEYDAY OF PAEDOLOGY IN BELGIUM (1899–1914): A POSITIVISTIC DREAM THAT DID NOT COME TRUE

MARC DEPAEPE

Afdeling Historische Pedagogiek, Katholieke Universiteit Leuven, Vesaliusstraat 2, B-3000, Belgium

Abstract

At the beginning of the 20th Century Belgium was said to be a center of the so-called paedological research. Since 1899 Medard Schuyten directed the internationally well known paedological laboratory in Antwerp; in 1912, Josefa Ioteyko founded in Brussels, as an outcome of the first world congress for paedology in Brussels in 1911, the "International Faculty of Paedology". Mainly on the basis of these Belgian sources, this chapter demonstrates how much the human sciences at the time were captivated by natural scientific thought and scientific optimism. © 1998 Elsevier Science Ltd. All rights reserved

In the framework of this thematic issue that relates the history of empirical research in education to its socio-historical background, it seems worthwhile to point out the substantial influence of positivistic and technological thought at the beginning of this century. An unbridled scientific optimism ruled at the end of the 19th Century which derived from the fact, among other things, that theories of Newton, Lavosier, and others seemed to be applicable to a number of social sectors (e.g., industry, agriculture, health care, and education). Science was increasingly perceived as a horn of plenty from which nothing but progress and blessings would flow. By means of a case study limited to Belgium, this chapter demonstrates that this faith in the benefits of science was a fundamental characteristic of the so-called paedological movement.

The Paedological Movement

What did the paedological movement involve? As was the case in psychology, pedagogical and didactic research around the turn of the century manifested, at least in some progressive circles, a pronounced preference for the use of experimental methods (Depaepe, 1993). The traditional philosophically oriented reflection on the phenomenon of education was being increasingly rejected as irrelevant and unprofessional. In its place were the new

sciences of the child and his education; child-study, paedology, and experimental pedagogy. In the years from 1890 to 1914, the experimental approach developed rapidly, especially in Europe. Following the American example, centers for the study of the child mushroomed from St. Petersburg to London. Even before the First World War, Medard Carolus Schuyten, a Belgian paedologist of world-wide renown, compiled a bibliography for the entire subject area. In the French edition (Schuyten, 1911), there were no fewer than 4,027 bibliographic entries all over the world.

The content of the movement, however, was far from being a coherent whole. In the first place, there was a considerable amount of conceptual confusion. Terms such as "child study", "paedology", and "experimental pedagogy" were not only used interchangeably as synonyms, but the definitions were also contradictory. Second, the experimental study of children was not seen as exclusively, and certainly not primarily, a matter for teachers and educators. Medical doctors and also psychologists, hygienists, and even sociologists, anthropologists, criminologists, jurists and others felt called to make their own contributions to the paedological movement.

Nevertheless, some general lines can be drawn from the Babel-like confusion of tongues at the time (Depaepe, 1992). By child study was meant in the United States, as well as in Great Britain, the study of children by the methods of modern science, (e.g. by means of diaries, questionnaires, observations, measurements, tests, and the like) the objective being to uncover the laws of natural development. Partially as a reaction to the amateurism of child study, preference was gradually given to other paradigms, as can be seen in the terminology used. While in the United States, mainly under the influence of Edward Lee Thorndike, the emphasis was on "educational psychology," mostly conceived of as applied psychology (Depaepe, 1997a), in Western Europe "paedology" and "experimental pedagogy" came into fashion. By experimental pedagogy was generally understood the experimental study of education, alongside of which there might or might not be a place for normative and philosophical approaches. Paedology presented itself as a scientific and more sophisticated form of child study. The word "p(a)edology" (or "paidology") was derived from the Greek and meant the "science of the child."

It is generally accepted that the term paedology in the sense of "science of the child" was introduced by the American Oscar Chrisman (De Vroede, 1977; De Landsheere, 1986). Chrisman, a teacher from Indiana, went to Worcester to study psychology in the early 1890s with Granville Stanley Hall, the trend setter in child study in the United States. As Chrisman (1896) himself said, there he got the idea to integrate into one science all the data on the child that had been gathered in various disciplines; biology, physiology, psychology, pedagogy, sociology, criminology, anthropology, history, and so on.

The theoretical concept of this science was given form in the doctoral dissertation, Pädologie, Entwurf zu einer Wissenschaft des Kindes, that Chrisman defended in 1896 in Jena in Germany. A couple of years later Eugène Blum (1898–1899), who taught at the athenea in Nîmes and Lyons, used the same term in virtually the same sense for the first time in French. Also before the turn of the century, the concept had also found entry into Great Britain. In 1899, for example, the journal The Paidologist (later Child Study) was launched in London. The journal was the organ of the British Child Study Association, founded in Edingburgh, the year before. This organization, in its turn, was the model for the Verein für Kinderpsychologie, which was formed in Leipzig in 1899. With people like William Preyer, on whose work, moreover, G. Stanley Hall had based himself, there was already attention on child study in Germany in the 1880s. In many other countries the floodgates were

definitely opened for experimental research in education. In addition to its use in German, French, and English, the term paedology was also common in Spanish (not only in Europe, but also in Latin America), Dutch, Hungarian, and several Slavic languages (Depaepe, 1987b; 1993).

Belgium as a Center of Paedology

Within this worldwide development, Belgium was certainly not unrepresented. More or less influential researchers such as Medard C. Schuyten, Josefa Ioteyko, Jean Jules Van Biervliet, Ovide Decroly, and Tobie Jonckheere helped to prepare the way for the new science. In Antwerp, Schuyten founded the Stedelijk Paedologisch Laboratorium in 1899 and, through his efforts, the Algemeen Paedologisch Gezelschap began a few years later. Around 1905, Ioteyko and Jonckheere introduced paedology to their student teachers in the normal schools of Charleroi, Mons, and Brussels, while Van Biervliet provided supplementary courses for teachers under the auspices of the Ministry of Arts and Sciences, which led to the founding of the Institut National Belge de Pédologie, in 1909, in the capital Brussels. Also in Brussels, the Société Belge de Pédotechnie began its activities in 1906.

In particular, Ioteyko, who was of Polish origin and held at the time a research position at the University of Brussels (Depaepe, 1990), and Schuyten the head of the Antwerp paedological laboratory (Depaepe, 1998), lit the bacons for the international development of paedology. Both were the inspirational force behind the organization of the first (and last) world congress for paedology that was held in Brussels in 1911, from 12 to 18 August, which was chaired by the world famous educational reformer Ovide Decroly (Depaepe, 1987c). At the urging of Schuyten and Bulgarian professor I. Gheorgov, it was decided in Geneva in 1909, on the occasion of the 6th International Congress of Psychology being held there, to combine forces and start an international paedological association charged with the organization of international congresses. Initially, things did not go very smoothly for one had to deal with the so-called Comité international et permanent de psycho-pédagogie that Alfred Binet had been trying to establish with Van Biervliet since 1905 and that would also organize international congresses (Depaepe, 1987a).

After the 1911 conference, for which 563 people from 35 different countries registered, Ioteyko founded, a year later and also in Brussels, the Faculté Internationale de Pédologie (Depaepe, 1985). The general objective of this faculty, which had to close its doors in 1914 because of the First World War, was to be a center where an international elite would come to be trained in experimental research on the laws of child development. The Faculty was an independent institution, founded with private capital but also under the auspices of the Belgian Minister of Sciences and Arts. The Bulletin of the Faculty, Le Paedologium (1912–1914), indicates that for the first academic year 12 students passed the first license year, seven Belgians (three women and four men), three Poles (two women and one man), one Romanian woman, and one Argentinian man, Alfredo Calcagno (who became later rector of the university of La Plata). During the subsequent academic year, 1913–1914, 40 students of ten different nationalities were attending the Faculty.

The paedological movement in Antwerp enjoyed considerable international renown also, even though it was largely a one-man show. The Antwerp laboratory was praised in the German pedagogical press as well as in the American. As a paedologist, Schuyten published not only in Dutch, but also in French, German, English, and Spanish, and his work was

further translated into Hungarian, Russian, and Portuguese. He represented his city at several international congresses. Thus, he attended the first three congresses for school hygiene: Nuremberg in 1904, London in 1907, and Paris in 1910. In Amsterdam, he was present at the first Netherlands congress for child study in 1913, and, as indicated above, he also participated in Geneva in the sixth international congress for psychology in 1909. In 1911, Schuyten became an honorary correspondent of the paedological institute of St. Petersburg and — before the outbreak of the First World War — he was offered chairs in Amsterdam and Groningen in the Netherlands and in Columbia (Depaepe, 1998).

Building a Paradigm

Following the admiration for the prestigious model of the natural sciences, Schuyten and Ioteyko wanted in their research — like other Western European paedologists such as Georges Persigout (n.d. [1908–1909]) in France — to proceed a kind of tabula rasa and construct the knowledge of the child in a gradual and secure, that is, inductive, manner. By means of all kinds of observations, measurements, and experiments with esthesiometers, dynamometers, and ergographs — instruments borowed from psycho-physiology (Ioteyko, 1909) — they hoped to bring to light fragmentary elements of knowledge. Relations among these elements should be able to be discerned from which experimentally verifiable hypotheses could be constructed and whereby ultimately partial as well as general patterns, laws, and theorems could be derived to explain child development and child behavior. Paedology was seen by them as the experimental and, after the example of Chrisman, the integral science of the child. It was experimental because the research methods of the natural sciences were elevated to absolute norms. It was integral because one wished to study the child in all dimensions — biological, psychological, and social — and because one would be attentive to both the "normal" and the "abnormal" child.

A necessary compliment of "pure" paedology was, however, "applied" paedotechniques. For science and technology, in the spirit of positivism, were inseparable. With the paedotechnical applications of paedological knowledge, society could be made significantly more rational and thus improved. Child raising would proceed more efficiently; infant mortality would decline; educational practice would be optimized; school diseases would be prevented; handicapped and delinquent children would be adequately taken care of in special institutions and rehabilitated to become useful citizens; vocational orientation and selection would see to it that each would obtain the job that was best suited for him or her, and so on.

The starting point for Schuyten's research was situated, as with the other paedologists, in the dissatisfaction with the way in which educational insights were traditionally generated. According to the paedologists, education could no longer function without the scientific study of the child. In the presentation of the first *Paedologisch Jaarboek* (1900–1919), Schuyten spoke out sharply against the "empiricism" — by which he meant the old way of dealing with children, rooted in experience and the tradition — and the "metaphysical" misconceptions to which education had fallen prey. In his opinion, education must be supported by the discoveries in physiology and psychology. Above all, the science of education had to acquire a mathematical character and "follow the way of all the other exact sciences." Helping this "dream" come true was the object of paedology in general and of the Antwerp year book in particular.

For the natural scientist Schuyten, there was no scientific method other than the experimental method. "The simple mathematical formulas, which Chemistry and Physics have established for the phenomena of inanimate natures will once also become the expression of physiological and psychological activity", so read the first to six theses to be developed "experimentally". If paedology wanted to take its undeniably rightful place "alongside her enviable Sisters, Chemistry, Physics, and so many others", then this could only be done by laboratory research and tests on an expanded scale. After the example of "qualitative chemical analysis," Schuyten hoped to be able to develop for paedology an "analytical method" that would apply to all aspects of juvenile development: school hygiene, anthropometry, physiology, psychology (of both the normal and the abnormal child), animal psychology, education (of both the normal and the abnormal child), sociology, and anthropology (including history) of the child. Thus, paedology was conceived by Schuyten as a kind of integrating synthesis whereby the disciplinary identity was determined primarily by the material object, the child. From a formal point of view, paedology acquired unity only by its attempt to learn to know the child in his or her general behavior through exterior signs, registered by measurements, and by reactions to inner stimuli under laboratory conditions.

Ioteyko and her Faculty colleagues shared most of these assumptions. As regards content, paedology was defined as the study of the child in all of his or her facets. Precisely like plants in botany and stones in mineralogy, the child must be subjected to experimental research in paedology. It was impressed upon the students that science was the whole of experimentally discovered truths. Science, it was stated, strove to obtain integral knowledge of humans and their environment. The desire for knowledge was, indeed, anchored fast in human nature. Thanks to the rational faculties of humans, order could be brought into the chaos of life and clarity created in the darkness of empiricism. Grosso modo, the sciences were divided into two categories:* the pure and the applied. The task of the pure sciences consisted of introducing new knowledge creatively and inventively, while the applied sciences were expected to allow the human community to enjoy the benefits of the discoveries as much as possible. Nevertheless, it was immediately added that this distinction was extremely relative. The pure and applied knowledge were, by no means, at opposite poles; rather they were extensions of each other.

The criterion for the value of a particular science was situated ultimately in its potential contribution to the happiness of people, the improvement of the race, and the promotion of peace. In agreement with the ideas of Auguste Comte, one assumed that science encouraged people to look to the future and that this capacity in turn would inspire action. According to the Ioteyko's imagery, one experienced the joyful and triumphant insertion of science in public life, for it would give the direction in which society would evolve. Through science individuals were capable of becoming masters of their environment. As illuminated giants

^{*}In the conception of L. Huerta, a student at the Faculty, the entire paedological concern was comprised in three forms of science: I. auxiliary sciences of paedology (1. biostatics: botanics, anatomy, histology, cytology, estequiology, analytical chemistry; 2. biophysics or biodynamics: general physiology, histological physiology, cytological physiology, biochemistry; 3. general biology; 4. psychology; 5. sociology); II. pure paedological sciences (1. paedotomy or anatomy of the child; 2. paedophysiology; 3. child-hygiene; 4. paedocomascetica or physical exercices; 5. paedopathology; 6. paedopsychology; 7. characterology of the child; 8. sociology of the child; 9. paedometry; 10. paedoscopy or psychosomatic study of the child); and III. applied paedological sciences (1. child care or "puericulture," 2. pediatry; 3. paedotechnology; 4. scientific or experimental pedagogy; 5. paedocritie or art of evaluating children).

and angels of freedom, scholars, like Prometheus, had to draw sparks of light from the darkness of the unknown (*Le Paedologium*, 1912–1914).

In short, within the paedological paradigm developed by Schuyten, Ioteyko, and others, the positivistic dream unfolded in full measure. Quantitative research methods were idolized and an almost magic power was given to the language of numbers. It was assumed unconditionally that experimental research was superior. Its objectivity was not doubted nor was the universal validity of the positive knowledge of facts to which the paedologists seemed to have attached the fate of mankind. According to Schuyten, one had "discovered" that all the expressions of the intellectual life could be measured and be reflected in numerical data. Ioteyko went one step further, by arguing that the detection of mathematical relations was the most beautiful result a science could ever boast of, not only because numbers were the opposite of all dogmatism but also because one number has more value than an entire library full of hypotheses! In the eyes of the paedologists, scientists were at the leading edge of social progress and they contributed to the increase of well-being, benefit, and happiness of humanity.

Paedology at Work

At first glance, the paedological themes studied by Schuyten and Ioteyko diverged considerably, apparently with little or no connection between them. Ioteyko, for example, believed that the senses, which were considered as the entrances for the acquisition of knowledge, formed the primary object of research. In this regard, the conviction reigned that it was not only necessary to assemble as much anthropometric data as possible, but also that it was urgent to find a solution to the problem of how the senses could best be educated and under which optimal conditions. Thus, in Schuyten's bibliography, there are studies on muscular strength in relation to the seasons; food intake in children of different social backgrounds; the vital energy of children, plants, and animals; the "sensitive" periods physically and mentally; right and left handedness of the upper and lower limbs; variations in skin sensitivity of students; the question of mental fatigue, the so-called "intellectual fog," which children had to overcome at the end of their school career; the division of students, the problem of coeducation; the research into the vocal register of students; and so on. Nevertheless, running like a thread through these themes are at least two positivisticallyoriented assumptions: (1) the presence of a universally valid, quantifiable, and thus rationalmathematically discoverable natural law that controls the psychological and physical phenomena; and (2) the unconditional faith in the emancipatory force of science and, related to it, in the "rational" and "technical" improvability of the world through scientific research.

Perhaps this can best be illustrated by Schuyten's physiological research (Bulletijn van het Algemeen Paedologisch Gezelschap, 1904–1914). For the explanation of the observed differences in bread intake as a function of the seasons, Schuyten used the notion of "vital energy," which was considered proportional to solar energy, "I consider a fundamental moment of the earthly energy the sun, which reveals its varying influence by the successive rising and falling of the atmospheric temperature over the four seasons," he wrote. In his view, the annual variability of diverse physical and psychological functions could thus be tested against the "ur-curve" of solar energy. In this way, not only could an idea be obtained about the degree of "normality" of the examined phenomena, but the life of people could also be improved as a function of this "ur-curve". Thus, according to Schuyten, the school

year and the organization of the vacations would best be organized in relation to the influence of solar energy. Even in inanimate nature, Schuyten thought he could discern a certain energy, albeit in another form, which was manifested in his concept of death. Dying he conceived as a gradual exhaustion of the ur-substance or, in other words, the conversion of vital energy into the energy of non-living matter. Again, this has pedagogical consequences. Schuyten encouraged educators to see to it that the vital energy was well developed and not wasted uselessly. As regards the development of the energy itself, advantage had to be taken of what he called "sensitive periods," a notion he took from biology. For example, he was of the opinion that childhood development could be influenced by appropriate pre-education of the fetus, which ultimately had to result in an improvement of the human race.

In association with research on child nutrition, Schuyten (Le Paedologium, 1912–1914) developed a nutritional index or coefficient which he obtained by dividing the circumference of the arm measured at the biceps by the circumference of the chest. On the basis of measurements of 1,400 children, he noted a ominous development in this regard. As the child grew older, the nutritional coefficient seemed to decline. This rather negative result Schuyten attributed to the traditional school education. In the "listening school" with little activity, the children had to sit still for hour upon hour, which interfered with a healthy development of the body. In his research on muscular strength, Schuyten (Paedologisch Jaarboek, 1900–1919) noted not only analogous energy variations in function of the atmospheric conditions such as with food intake but also a positive correlation with intelligence. "The intellectually most gifted children also are the highest in muscular strength and vice versa," stated Schuyten. He also found that the least gifted were more often left-handed than the most gifted, with the additional curiosity that left-handed students who were forced to become right-handed generally started to stutter. Finally, it is not unimportant that social explanations were also cited to account for the variation in observed grip force. Taking up what MacDonald (1902) had demonstrated in the United States, Schuyten wondered whether the children of the well-off were not better developed, according to "known biological laws," than the others because they scored better on the dynamometric tests than those of less well-off parents.

For the variance in psychological dispositions, such as memory and intelligence, Schuyten cited a number of factors: the degree of mental fatigue, association speed, conceptual ability, and the aptitude of the child, and, again, the influence of the seasons, social origin, and sex of the child. Contrary to Ioteyko, Schuyten (1908) assumed that girls had other and fewer intellectual capacities than boys. According to Schuyten (*Paedologisch Jaarboek*, 1900–1919), the mental processes could ultimately be reduced to two abilities: the creative ability and the assimilation ability. Different intellectual types could be distinguished in function of the proportional presence of these two abilities. For example, mental fatigue, which could be measured by means of esthesiometric variations in the skin sensitivity and the pain threshold, Schuyten also perceived as a system failure of traditional education. Because of the one-sidedness of the educational methods, the children left school less healthy — "weakened" and "enervated" — than when they had come. This had not so much to do with the content of the program as with the stupefying way of working. The "fresh perception" of the youth was increasingly overcome by a kind of "cloud" or "mist" that prevented the children from thinking clearly any longer.

Schuyten devised for this phenomenon the term "nubes" or "mental mist." In order to free the child from the "nubes," he proposed a number of school hygienic measures, including

some for the ideal classroom seat, preference for perpendicular handwriting instead of slanted handwriting, and appropriate sex education, and also reforms in educational organization. The traditional division into year long classes on the basis of calendar age no longer sufficed. It had to be replaced by a more "rational" division of students on the basis of "scientific" criteria, such as results on memory, dynamometric, and esthesiometric tests. Ioteyko, for her part, constructed a lot of bridges from her paedo-physiological research to education, particularly to the new school movement. Convinced that different types of learners could be distinguished according to their "visual" or "auditive" memory, she recommended the much discussed method of Maria Montessori as one of the most successful paedological applications, even though Montessori herself never used the term paedology. The older sensitive-ideo-motoric method of Friedrich Fröbel also suddenly received a scientific cachet within the framework of paedology and paedotechnics (*Le Paedologium*, 1912–1914).

A Dream That Did Not Come True

Did the interest in paedology in the period before the First World War ultimately yield anything concrete for child raising and education? Probably not, or at least not very much. One of the constants that has emerged from the various research studies includes the discrepancy between desire and ability, between intention and result. Indeed, the findings obtained were not at all in proportion to the expectations. Paedology never did get much further than a collection of isolated, very divergent, and often even contradictory facts and details. What, for example, had come from the scientific pretentions of determining the best teaching methods by means of experiments? Did not the desire for increasingly successful education give witness rather to a complete preference for a rationally ordered (and thus more controllable) society than to a true emancipatory interest in the child? Was the paedological movement ever capable of designing a kind of ideal school, free of the social reality, that led to the institution of the Western model of society (Schuyten, 1913)?

Particularly significant for the increasing loss of pedagogical and social power of paedology seems to have been the divergence of, on the one hand, the creative "experiments" of the reform educationalists — dismissed by Buyse (1935) as "experienced" pedagogy — and, on the other, paedology or "experimental" pedagogy in a narrower sense. Consider an example. An important demand of the new school movement concerned not only the individualization and differentiation in education but also the associated breakthrough of the year-class system. All proposals made in this regard from the paedological and experimental-didactic corner did not fundamentally affect the internal organizational principles of that system. The need for instruction in classes was not questioned nor was the function of the annual pass examinations. In addition, insufficient attention was given to the pupils who had to repeat years. The only difference from the existing situation was that the paedologists and the experimental educationalists proposed other classification criteria for the classes.

Of course, one can argue that the paedological approach did demonstrate certain differences among the pupils and thus, as it were, not only provided the scientific foundation for reform pedagogy (De Vroede, 1977) but also indirectly contributed to a more child-oriented practice. But to what extent can these influences be considered autonomous? To what extent was the experimental-analytical direction, apart from the more general striving

for renewal from which it emerged, able to give its own impulses to the renewal of practice?

In spite of all the high-flow rhetoric, the paedological paradigm collapsed like a soufflé after the First World War. The integralistic striving for a single science of the child could not be realized. Except that all the research concerned the child, there was little unity to be found in paedology. In any event, paedology remained, methodologically, a "Fremdkörper." A paedological research method, which could have formed, as it were, the centrifugal force of this new scientific discipline, was never found. Paedological research was compelled to make use of existing methods and techniques of physiology, psychology, anthropometry, and the like. From this perspective, therefore, it is easy to see that the impact of paedology on the development of the pedagogical sciences was largely indirect. In a certain sense, the paradigm of paedology can best be conceived as a kind of balloon or soap bubble with which one tried to coordinate the disparately generated studies on the child from other disciplines and to integrate them into one positivistically conceived model of science. Even though this balloon or soap bubble soon burst into atomic subdisciplines, paedology still conveyed the desire for a more scientific approach and practical relevance to these, partially new, subsidiary disciplines.

With a nod to what has come to light in the margin of the postmodernism debate, one could wonder whether the experimental approach (as well as the reform pedagogy) did not rather give rise to new and more subtle forms of exercise of power (Depaepe, 1997b). By constantly stressing in measurement comparison, classification, and selection, the research was more patronizing than emancipating. What was "best" for the child and adolescent was not to be determined by the child or adolescent but by the research. The old notion that scientific research would automatically lead to more competent child-raising behavior must, at least, be qualified. With Herrmann, Oelkers, Schriewer, and Tenorth (1983), one can argue that pedagogy in general was an activity that fed the professional ethos of its practitioners rather than the transfer from theory to practice and vice versa. This seems to have been true in particular for paedology that wanted to supply higher status to pedagogy, which was almost constantly threatened with mockery.

That the professional significance of paedology must, indeed, be conceived as a function of its possible contribution to status enhancement is not so difficult to demonstrate. It is sufficient to point out that the example of prestigious medicine was never far away. Apparently, the greatest desire of the paedologists was academic recognition. Once their course was taught at the university, social enthronement seemed to be definitely at hand (e.g. Ziertmann, 1914). Behind the call for academization lurked the desire for building individual scientific careers.

Finally, concerning the social significance of the research itself, it already has been stated that the experimentalists presented themselves in the course of history as unbridled world reformers. The fundamental axiom here was that better child raising and better education would make the growing youth happier, which would significantly increase productivity in all areas, cultural as well as economic. Paedology skillfully made use of the idea of increasing the social success rate of child raising by means of experimental research, through which the positivistic dream of a well-ordered, rationally managed, and scient-ifically supported society would immediately be brought much nearer. Faithfully following the paedological and paedotechnical recommendations would, it was said, put the right people in the right places in the army, in industry, and in social services. In Schuyten's conception as well as in Ioteyko's, the science remained a version of the Enlightenment

concept of scientific research, with modifications only in details. The human sciences clung to the image of science as an ambitious and absorbing adventure directed to the discovery of the ultimate comprehensive theory in service of the improvement of the world. In this sense, the paedological movement must be qualified as highly modernistic. As such, it causes no wonder that its long tirades on objectivity and neutrality could not keep paedological research from being affected by the modernistic, capitalistic ideology, not only in its results but also in its design.

All in all, it would be an exaggeration to view the history of paedology purely and simply as the result of social factors. As paedology itself was unable to cast the behavior of children in mathematical formulas, the history of science is incapable of providing an univocal let alone causal explanation in terms of social determinacy. The fact that the trend to professionalization as well as the desire for personal success collided several times with ideological convictions — Schuyten, for example, refused during the First World War an appointment to a university of Ghent for ideological reasons (Depaepe, 1998) — suggests how complex and unpredictable is history, including the history of the educational sciences.

References

Blum, E. (1898-1899). La pédologie. L'idée, le mot, la chose. L'Année Psychologique, 5, 303-315.

Bulletijn van het Algemeen Paedologisch Gezelschap (1904–1914). 1-9.

Buyse, R. (1935). L'Experimentation en pédagogie. Brussels: Lamertin.

Chrisman, O. (1896). Paidologie. Entwurf zu einer Wissenschaft des Kindes. Jena: Vopelins.

De Landsheere, G. (1986). La Recherche en education dans le monde. Paris: P.U.F.

Depaepe, M. (1985). Science, Technology and Paedology. The concept of science at the "Faculté Internationale de Pédologie" in Brussels (1912–1914). Scientia Paedagogica Experimentalis, 22, 14–29.

Depaepe, M. (1987a). Social and Personal Factors in the Inception of Experimental Research in Education (1890–1914): an exploratory study. History of Education, 16, 275–298.

Depaepe, M. (1987b). The International Organization of Paidology Before World War I. In S. Komlósi (Ed.), History of international relations in education. Conference papers for the 9th Session of the I.S.C.H.E. (Vol. I, pp. 129-138). Pécs: Regional Committee at Pécs of the Hungarian Academy of Sciences & Janus Pannonius University, Institute of Education.

Depaepe, M. (1987c). Le premier (et dernier) congrès international de pédologie à Bruxelles en 1911. Le Binet Simon. Bulletin de la Société Alfred Binet et Théodore Simon, 612, 28-54.

Depaepe, M. (1990). La pédologie comme base d'un monde meilleur. J. Ioteyko et la science de l'enfant au début du XXe siècle. In Y. Fumat, A. Guillain & P.A. Sigal (Eds.), Les enjeux éducatifs. Emergence — permanence — recurrence (pp. 211-235). Montpellier: Publication de la Recherche, Université Paul-Valéry.

Depaepe, M. (1992). Experimental Research in Education 1890-1940: Historical processes behind the development of a discipline in Western Europe and the United States. Aspects of Education. Journal of the Institute of Education The University of Hull, 47, 67-93.

Depacpe, M. (1993). Zum Wohl des Kindes? Pädologie, pädagogische Psychologie und experimentelle Pädagogik in Europa und den USA. 1890-1940. Weinheim/Leuven: Deutscher Studienverlag/Leuven University Press.

Depaepe, M. (1997a). Differences and similarities in the development of educational psychology in Germany and the United States before 1945. *Paedagogica Historica*, 33, 69-97.

Depace, M. (1997b). Demythologizing the educational past: An everlasting task for the historian of education. *Historical Studies in Education*, 9, forthcoming.

Depaepe, M. (1998). The Pedologist Medard Carolus Schuyten: A crazy positivist or just a starry-eyed idealist? In P. Drewek & Ch. Lüth (Eds.), History of Educational Studies. Geschichte der Erziehungswissenschaft. Histoire des Sciences de l'Education (pp. 209-229). Ghent: CSHP.

De Vroede, M. (1977). Die Anfänge der 'wissenschaftlichen Pädagogik' (Pädologie) in Belgien von etwa 1895 bis 1914. Zeitschrift für Pädagogik, 14 (Beiheft), 159-174.

Herrmann, U et al. (1983). überflüssige oder verkannte Disziplin? Erziehungswissenschaft zwischen Ratlosigkeit und Betriebsamkeit. Theoriekonstruktionen und Theorieverschleiß. Zeitschrift für Pädagogik, 18 (Beiheft), 443–463. MacDonald, A. (1902). A plan of study of man. Washington (D.C.): Bureau of Education.

Ioteyko, I. (1909). Aide-mémoire de Psychologie. Expérimentale et de Pédologie. Brussels: Ohlenmacher. Paedologisch Jaarboek (1900–1919). 1-9.

Le Paedologium (1912-1914). 1-2.

Persigout (n.d. [1908-1909]). Essais de Pédologie Générale. Paris: Poulin.

Schuyten (1908). L'education de la femme. Paris: Doin.

Schuyten (1911). La pédologie (Synthèse). Ghent: Vanderpoorten.

Schuyten (1913). Pro en Contra Paedologie, naar aanleiding van mijn voordracht gehouden te 's Gravenhage den 2 Nov. 1912. The Hague: Ontwikkeling.

Biography

Marc Depaepe is professor of the history of education at the Dutch-speaking University of Leuven and research director at the Foundation for Scientific Research in Flanders. He served as Secretary (1989–1991) and Chairman (1991–1994) of the "International Standing Conference for the History of Education" (ISCHE) and is President of the Belgian–Dutch Society for the History of Education (1998–). He published and edited books and articles in several languages (Dutch, French, English, German, Italian, Spanish, Polish, Portuguese, Russian and Chinese) on Belgian educational history in general and of the development of primary education in Belgium.