

**Transforming theories of childhood and early childhood
education: Child study and the empirical assault on
Frebelian rationalism**

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Abstract

This article considers the possibility that one of the defining characteristics of the New Education, as it related to children in their early years, was its epistemological break with rationalist forms of knowledge and its embrace of empiricism and positivism. It considers briefly, social theories that identify a similar process at a societal level before examining some of the polemics directed against theories of education based on rational forms of knowledge and in particular, Froebel's system. This theme is then pursued through a detailed consideration of the child study movement in England and its promotion of an empiricist project concerned with the production of knowledge about the child which drew upon the emergent fields of physiology, educational psychology, education and statistics. It is argued that child study helped to create the conditions for these sciences to distinguish themselves from the older philosophical currents from which they emerged. Consideration is then paid to how these transformations reacted on child study and on the Froebel movement. The article concludes that a break did indeed occur in the ways in which education was legitimated and that through the arrival of a new empirically based, scientific approach it became more closely aligned to reforming impulses. Nevertheless, the old philosophical, metaphysical foundations were not vanquished as in a violent rupture but were articulated in a new dialectical synthesis.

Introduction

What exactly constituted and characterised the New Education is a matter of considerable conjecture, partly because the term is relational. That is to say that much of its meaning derives from its opposition to the 'Old' education and for this reason, its meaning is never entirely fixed¹. Nevertheless, in this article I shall argue for a partially essentialist view² that holds that the New Education was an entity with certain defining characteristics and that one way of distinguishing it from other kinds of education, is to view it as emerging from an epistemic break or rupture in the forms of knowledge that legitimated its orientation towards the reform of individuals and societies by means of education. This does not by any means resolve all the definitional problems associated with the concept of the New Education, not the least because as early as 1877 some, like the English Froebelian leader, Emily Shirreff, were arguing the case for Froebel's system to be considered the New Education.³ Not only was this some years before the break discussed here had taken place but it also used a different set of criteria to identify the New Education than I am proposing is essential.

Firstly, some explanations of transformations of knowledge within many different sites albeit pitched at a high level of abstraction will be discussed briefly. My assumption is that they were connected in some way to the transformations and attempted transformations of knowledge of a more specific nature that occurred within the sphere of education and schooling towards the end of the nineteenth century. More particularly, I shall consider the transformation of knowledge about young children and their education that was associated with the New Education.

This transformation, I shall argue, was articulated to the project to construct a scientific field and an academic discipline, of education consequent upon the construction of national systems of schooling. What I intend here, following Merton, is a theory of the 'middle range'⁴ that attempts to combine an empirical study with the high level of abstraction exemplified in the social theories of Dewey, Weber, Marcuse, Habermas and Foucault. Specifically, I shall look first of all at evidence for the transformation in the work of G. Stanley Hall, and I shall discuss the various manifestations of child study in England and their relation to the emergent sciences of the child, educational psychology and of education and their relation to the New Education. I shall conclude with some reflections on notions of the field and its emergence, focusing the processes by means of which social movements gave rise to, or interacted with, professionalizing projects and the way the academy, the universities in which the discipline of education became institutionalised, gradually differentiated itself from these movements.

Rationalism, empiricism and theories of the transformation.

At a high level of abstraction, the break identified might be thought of as one in which philosophy was replaced by science as the foundation of education. In this article I shall focus on the replacement of rational knowledge claims to truth by empiricist ones which may be seen as a particular instance of the general trend. Used in philosophy, rationalism refers to the belief that reason is more important than the senses in obtaining knowledge⁵. Empiricism, on the other hand, holds that knowledge is derived from sensory experience alone and is often connected to positivism, which shared the view that true knowledge can only be derived

through sensory experience and that the methods of natural science can be applied to the study of human societies and social relations. Viewed historically, this break paralleled, and may have been homologous with, a shift in social theory, philosophy, economics and history that occurred more widely in other domains of the human sciences towards the end of the nineteenth century. The *Methodenstreit* literally, 'strife over methods' that occurred in Germany, is a well known example that involved, primarily, a conflict between the rationalists of the Austrian School of Economics, and the empiricist proponents of the German Historical School⁶. Soon after, within the revolutionary workers' movement, a struggle emerged between the positivism of the Second International, largely inspired by Engels' and Kautsky's reading of Darwin on the one hand, and Hegelian Western Marxism in which Labriola and Lukács were key figures⁷. A common aspect of all these conflicts was that they largely took place between advocates of positivist and related empiricist approaches to knowledge and their rationalist, opponents.

However, even though examples like these may be adduced, and many thinkers remarked on this trend, there is little agreement on its periodisation. Most social theorists tend towards conceiving the transformation as a *longue durée*. The Soviet psychologist, Lev Vygotsky, for example, wrote that the division of psychology into rational and empirical psychology occurred in the eighteenth century⁸. The American educationalist and philosopher, John Dewey, on the other hand, identified the conflict as connected to the scientific revolution of the seventeenth century and the challenge posed to the rationalist perspective of the

classical tradition by the scientific revolution's empiricist approach. Describing the former, he wrote that it, 'has continued to hold a slighting view of experience as such, and to hold up as the proper goal and ideal of true knowledge realities which even if they are located in empirical things cannot be known by experimental methods'⁹. He outlined how this classical tradition of philosophy subsequently came under pressure from science as its domain was challenged by the new methods of obtaining knowledge. 'Science itself through the aid of mathematics carried the scheme of demonstrative knowledge over to natural objects' which in 'the older scheme had belonged only to rational and ideal forms' and this broke the connection between rationalism and the natural world¹⁰. The outcome of the challenge mounted by science, was, 'rivalry between the spiritual values guaranteed by the older philosophic tradition and the conclusions of natural knowledge' with philosophy becoming more closely aligned with religious belief. Science, in the form of positivism and empiricism challenged the relation between rational knowledge and moral values and produced the fact value distinction and the claim, associated with the Enlightenment philosopher, David Hume, that values cannot be derived from facts.

Another key theoretical resource in several accounts of the transformation of knowledge was provided by the German sociologist, Max Weber's who, in his typology of social action, distinguished between instrumental rationality (*zweckrational*) guided by utility and value rationality (*wertrational*) by ethics and morals.¹¹ Modern societies, he argued, are characterized by a rationality, which is means orientated and is not concerned with the formulation of ends, which is the

province of values. In his *One Dimensional Man* the Frankfurt School critical theorist, Herbert Marcuse extended Weber's critique of instrumental rationality arguing, in a manner partly reminiscent of Dewey, that, 'the quantification of nature, which led to its explication in terms of mathematical structures, separated reality from all inherent ends and, consequently, separated the true from the good, science from ethics.'¹²

The contemporary German theorist and social philosopher, Jürgen Habermas, who inherited and reworked the legacy of the critical theory of the Frankfurt School, viewed the transformations as being related to capitalist modernity and like Marcuse, he conceived of the realm of the moral and aesthetic as becoming dominated by instrumental reason. 'Capitalist modernization', he wrote, 'follows a pattern such that cognitive instrumental rationality surges beyond the bounds of the economy and state into other, communicatively structured areas of life and achieves dominance there at the expense of moral-political and aesthetic-practical rationality'¹³.

In summary, a possible conclusion to be drawn from all these theorists is that instrumental rationality, provides the context for positivism and empiricism as both make truth claims about knowledge related to means and eschew moral and ethical ends which hitherto had been the realm of rationalism and religion.

Foucault's account of the transformation was rather different. He charted the end of what he termed the Classical 'episteme' and its replacement with a Modern one. His notion of an episteme, which he was later to supplement as he moved from what he called, 'archaeology' to 'genealogy', is also useful in understanding

the discursive shifts that accompanied the transformations identified by Dewey, Marcuse and Habermas. Foucault thought the episteme governed what was acceptable to say in a scientific field and it was, 'the 'apparatus', which makes possible the separation, not of the true from the false, but of what may, from what may not, be characterised as scientific¹⁴. Foucault, however, does not provide a convincing account of how epistemes arise or change.

Context

Foucault also conceptualized, in his notion of biopolitics¹⁵ the increasing interest of states in the health and welfare of their populations that, in the late nineteenth century, began, among other things to focus on the child. The child became the subject of the disciplines or sciences of the child and in turn, developments in the techniques of those sciences, produced a turn to the child for their application. In part, the development of mass systems of compulsory schooling made the child more visible and a target for intervention.

Schooling also provided the institutional context for the specific transformations in educational knowledge that have been well described by Hofstetter and Schneuwly who wrote that,

The 19th century in the West was characterised by tremendous enthusiasm for science and education: it saw the rise of a powerful movement for literacy and schooling; pressures for qualifications led to diversification in schools and a growing body of professionals; schooling gradually became an affair of State, each and every one considering that the nation's future was at

stake ¹⁶

As schools proliferated, and the regulation and power of the state grew accordingly, attention turned to the training of teachers and the knowledge held to be most appropriate to their preparation. In nineteenth century England elementary school teachers were, for the most part, trained on the job through the pupil-teacher system¹⁷. Toward the end of the century, however, a growing proportion attended training colleges where knowledge was in the hands of the Masters and Mistresses of Method who wrote the manuals of classroom instruction. As the numbers of teachers increased, so did the signs of professionalisation and the emergence of a 'field' of education in the form of journals, conferences and courses.

Teachers in secondary schools, which were largely untouched by state regulation in England until 1902, were, unless they were women, mostly untrained. The establishment of day training colleges in the 1890s linked to recently founded university departments of education altered the situation slightly and at the same time provided substantial funding for the education departments.¹⁸ This development, in brief, provided the material base for the institutionalisation of the discipline of education.

Bourdieu on disciplines

The French sociologist, Pierre Bourdieu wrote that a discipline is, 'a relatively stable and delimited field', ... 'relatively easy to identify' ... inscribed in institutions, laboratories, university departments, journals, national and international fora (conferences), procedures for the certification of competences,

rewards systems and prizes¹⁹. Crucially, he added a structural dimension by saying that, 'the various disciplines occupy positions in the (*hierarchized*) space of disciplines and that what happens in them partly depends on these positions'²⁰.

Numerous examples abound of how universities at the end of the nineteenth century in England were reluctant to admit education into their hierarchized space of disciplines, mainly because of its association with practice, teacher training and the schooling of the working class.

Another principal attribute of a discipline, according to Bourdieu, which was largely absent from education in England at the time, is its possession, of a collective capital of specialized methods and concepts, mastery of which is the tacit or implicit price of entry to the field'.²¹ Many of the methods and concepts used in the field of education were only if specialized were only partially so.

Joseph John Findlay, one of the first men to hold a chair in a department of education in England, faced considerable hostility to his view that education should be taught in a university²². He complained in 1902 that, 'the majority of writers in Great Britain have hitherto adopted methods of exposition which are frankly empirical. They have recognised that the time has not arrived to offer the profession a scientific exposition of Education ... and have taught Education as a practical art'²³. Empirical, in this sense, is only loosely related to empiricism that many trying to establish the discipline advocated. It referred instead to what Bourdieu termed, *doxa*, a pre-verbal, taken-for-granted knowledge that 'flows from practical sense'²⁴. As Findlay observed, many writers on education were 'content with the same common-sense, or "practical," starting-point'. Sir John

Adams, soon to become Professor at the London Day Training College,²⁵ also attacked this attitude, which he discerned in some of the authors of texts on education. He characterized as 'empiricist' literature that dealt with 'school management,' as opposed to the literature that dealt with 'education as a science' ²⁶.

The construction of a science of education, or a discipline in Bourdieu's sense, advocated by Findlay and Adams was a common objective of many educationists at the end of the nineteenth century but there was little agreement as to what the criteria for such a science might consist of or what its foundation might be. For Adams, the main candidate was psychology upon which education, he thought, was 'utterly dependent' 'for any social standing it may possess'²⁷. However, contemporary psychological textbooks for teachers written by authors like Bain, Ward, Lloyd Morgan and Sully were largely philosophical psychology²⁸. In the late nineteenth century, it was physiology, as Steedman has noted, which had come to be regarded as a paradigmatic science, that offered psychology a route away from philosophy and metaphysics. ²⁹ Bain, for example, wrote in his *The Senses and the Intellect* on the physiological basis of the psychological phenomena he was interested in.³⁰ But little equivalent to the transformation of pedagogy into a psycho-physiological science that Key claimed was occurring in Sweden³¹ could be observed in England. Many 'New Educators' like the nursery school pioneer; Margaret McMillan drew extensively on the physiological work of Édouard Seguin that gave a great impetus to the emergent sciences of the child. It was an essentially Darwinian, biological and evolutionary episteme that governed the

definition of science that the day training colleges and other institutions began to adopt.

Not all engaged in constructing the disciplinary field of education were convinced of the leading role ascribed to psychology and physiology. There was competition for the provision of education's scientific basis and it was not certain that a construction of the 'child', rather than one of 'society', would come to dominate educational discourse. Writing in 1898, Findlay rejected the claims of psychology to play the role of the science of education. His argument, which had a Durkheimian sociological inflection, was that, 'Education, regarded either as a science or an art, is no mere deduction from the laws of the mind, but is an act undertaken by the adult community, by parents, by civil and ecclesiastical authorities of various kinds, for the welfare of the rising generation'.³²

For Findlay, then at his most Herbartian, the science of education was to be formed not only from the application of psychology, 'but of physiology, of ethics, of sociology, of politics'. A similar view was expressed by the Froebelian, Thomas Raymont who drew upon Dewey's work in constructing a case against any attempt to 'found a theory of education upon psychology'. He also saw the curriculum in similar terms to Findlay describing it as, 'the outward expression of the ideas and aspirations of a community, not of an individual'.³³

In addition to combating the practical wisdom or the *phronesis* of the masters and mistresses of method the promoters of the discipline had also to take account of what already constituted the field. This led, initially, to the appropriation of Herbart's theories that came to dominate the field of pedagogy in England. Its

attraction is not hard to uncover as Wilhelm Rein pointed out, Herbart's educational thought, like Pestalozzi's was primarily ethical.³⁴ Embraced by Dewey in the US and Findlay and Adams in England, the ascendancy of Herbart was short-lived however as his ideas were seen to be too rationalist and insufficiently empiricist to be of use to the discipline builders.³⁵

Froebel's rationalism

Herbart's ideas tended to be utilized in the training of teachers of school-aged children whereas the theories that dominated the education of pre-school children and infants were largely those derived from Froebel and his interpreters. For Froebel the purpose of education was deduced from his conception of the 'Absolute'. In *The Education of Man* he wrote that, '*Education consists of leading man, as a thinking, intelligent being, growing into self-consciousness, to a pure and unsullied, conscious and free representation of the inner law of Divine Unity, and in teaching him ways and means thereto*' (italics in original).³⁶ From this end, flowed his whole conception of education and it is wholly characteristic of rational thinking. Often it is contrasted to empiricism but frequently, as in Froebel's case, rationalism and empiricism co-exist. As the Herbartian school inspector, Frank Hayward, a prominent critic of Froebel wrote, citing the founder of the kindergarten's 'powers of observation', 'his whole system rests on a long-continued personal study' of the 'growing child'.³⁷ Hayward's view notwithstanding, in Froebel's writing, rational knowledge was nearly always privileged over knowledge derived from observation.

After Froebel's death, the movement of his followers soon came to dominate the

theoretical field of early years education in England. Froebelian knowledge benefited from the late nineteenth century emphasis on the importance of the child and childhood, which, in turn, was connected to Darwinian notions of heredity and development that held out the possibility of social reform. The public health and social hygiene movements also contributed to the emphasis on the child as did fears of physical and 'racial' degeneration, highly pertinent concerns during an era of imperialist expansion and anxieties regarding the physical fitness of soldiers.³⁸ On the other hand, the hegemony of Froebelian theories over the child and early childhood education was threatened by the various empiricist sciences and pseudo-sciences, like phrenology, that proliferated in the wake of Darwinian theory.³⁹ It was also confronted by the emergence of child study as an empirically based educational movement.

G. Stanley Hall and the Growth of Child Study.

After gaining a doctorate in psychology under William James at Harvard, G. Stanley Hall visited Wilhelm Wundt's laboratory in Germany. He was a key figure in the emergence of educational psychology in the United States and the acknowledged leader of the Child Study movement. Hall was not the first to conduct empirical studies of children but in 1891 he achieved prominence through his use of questionnaires to study the 'context of children's minds.' These new methods were opposed by academics who held fast to philosophical notions of education and Hall described the competition between them and the advocates of child study as. 'a kind of warfare.'⁴⁰

In 1909, Hall organized a conference at Clark University that was attended by

Freud and Jung. The extent to which the child and childhood had become an object for intervention by public and private organizations in the United States is conveyed by the fact that represented at the conference were,

day nurseries, kindergartens, child psychology, medical education of defectives and subnormal children, open-air schools, tuberculosis in children, eugenic movements, psychological clinics, school nurses and physicians, settlement work for children, boys' clubs, Sunday school, industrial training, child labor, story-telling league, children's theater, playground movement, children's libraries, dancing and music, the juvenile court.⁴¹

The relation between science, reform and administration is evident in the composition of the conference that the Gesells dubbed, 'a general child-welfare congress'. The intended outcome was the foundation of a children's institute, which was to correlate, 'the scientific studies of children with practical methods for advancing their physical, mental, and moral well-being.' In this, Hall was thwarted, as it was the Children's Bureau dominated by progressive women reformers that came to play the role he envisaged and their enthusiasm for reform was, arguably, much greater than his. Hall was also to be outflanked in the scientific field by Hugo Münsterberg who criticized his methods as unscientific but nevertheless, Hall's approach proved immensely popular⁴² and in many respects, together with Montessori, Hall was a leading propagandist or ideologist for a positivist, science of education.

Like Montessori also, Hall entered a field that was already occupied by Froebelians. In critiquing Froebel he strengthened the position of Froebelian revisionists like Patty Smith Hill, who he invited to Clark University, by pouring abuse, much of it openly misogynist, on Susan Blow the Hegelian guardian of Froebelian orthodoxy. Taking aim at the orthodox, he described himself as a 'true disciple of Froebel' and wrote that, 'my orthodoxy is the real "doxy" which if Froebel could now come to Chicago or Boston he would approve'. Nevertheless, he described Froebel's theories as, 'nebulous speculations' that,

were bred by the *Zeitgeist* in the natal age of German philosophy, and also by the great idealistic movement which accompanied the birth of this puissant nation. His weird and bizarre version of this metaphysical ferment was a unique "culture bouillon" concocted of various ingredients: theosophic mysticism, foregleams of evolution, passionate enthusiasm for nature just as the great scientific movement was dawning, and love of children based largely upon self-pity for the pathos of his own childhood ...'⁴³

He described Froebel's *Education of Man* as 'a nondescript medley and conflation of *aperçus*' and added that it was particularly suited to women whom he viewed mainly in a maternalist light. This, he contrasted to Child Study which he said, 'promises to be the best logical, genetic, and pedagogic focus of all the sciences that deal with life'⁴⁴ But rather than replace the kindergarten entirely with something more 'scientifically' based, G. Stanley Hall sought to transform its

knowledge base with, 'a psychology that shall be really genetic, to introduce evolution into the sphere of the mind, and to make everything plastic to the nature and needs of the child.' and thereby retain the legitimacy granted by, what might be called, after Bourdieu, Froebel's 'symbolic capital'.

The Reception of Hall's Child Study in England.

In 1893 while President of Clark University in Massachusetts, Hall founded the National Association for the Study of Children and in the same year his work became known to readers of the *Journal of Education* in England through an article written by Mary Louch entitled 'Educational Progress in America'⁴⁵. Louch, a teacher at the prestigious, Cheltenham Ladies' College, together with two other teachers from Britain, Miss Crees from London and Miss Clapperton from St George's Training College, Edinburgh, visited the World's Fair at Chicago in 1893.⁴⁶ There, they attended the Congress of Experimental Psychology presided over by G. Stanley Hall which had Child Study as its theme. On their return to England, the three teachers established Child Study Societies in Edinburgh, London and Cheltenham.

Despite this enthusiasm for Hall and his methods, the attitude of the *Journal of Education* was sceptical. An anonymous reviewer of an article of Hall's in 1894 wrote of his questionnaires that, 'We cannot help noting the paucity and poverty of the results compared with the vast amount of material collected'. Nevertheless, the journal continued to publicize the methods of Child Study. In December 1894, it carried a letter from Hall headed, 'A topical Syllabus for Child Study'. The area to be studied was that of anger in children and Hall advised his followers to carry

out a number of observations and to, 'Describe every vaso-motor symptom, such as flushing, paling about the forehead, cheeks nose, neck or elsewhere. Is there horripilation ...?'⁴⁷ In their descriptions, observers were urged to be, 'photographically objective, exact, minute and copious in detail'.

Interest in Child Study in England grew rapidly and following the publication of more of Hall's syllabus, a reviewer wrote in 1896 that, 'we are inclined to enter a protest against the extravagancies of child study, which is becoming the rage'. For the Froebelian revisionist, Alice Woods, Child Study offered the possibility that the power of a child's mind could be developed in proportion to, what she described as, the ever-increasing number of new ideas and new subjects which were springing up.⁴⁸ In 1895 the psychologist, James Sully, ran a course at the College of Preceptors on, 'The Characteristics and Development of the Child' and so prominent was Sully's role in the Child Study movement in England that the later disgraced educational psychologist, Cyril Burt erroneously gave to him the credit of founding the British Child Study Association.⁴⁹

The British Child Study Association

Adapting the name of the organisation founded by Hall in America in 1888, The British Child Study Association was formally established in 1898⁵⁰ and among its Vice-Presidents were Sully, the American Professor, Earl Barnes of Stanford University, Dorothea Beale, the head of Cheltenham Ladies College and an early advocate of a science of education,⁵¹ and the sociologist and town planner. Patrick Geddes, who was invariably present in any 'new' or 'modern' organization during the period.⁵² Also closely involved was Henry Holman an advocate of

'hand and eye' training, a school inspector and later, professor of education. The aims of the Child Study Association were printed in its journal, *The Paidologist*. The term of the title is generally accepted as being coined by G. Stanley Hall but it has also been attributed to a colleague of his at Clark, Oscar Chrisman.⁵³ The aims of the Association were broad and populist. They were, 'To interest parents, teachers and others in the systematic observation of children and young people, with a view to gaining greater insight into child-nature, and securing more sympathetic and scientific training of the young'.⁵⁴

In 1902, these aims were amended in order to widen the constituency of the Association so that it included medical practitioners and had a more explicit link with education. The revised aims now included the assertion that:

it is only by a more precise knowledge of the natural process of unfolding of the human mind, and of the way in which this can be modified by the environment, that further advance can be made in education of the principles of a natural and sound education.

In both sets of aims, there may be detected the desire to base education on scientific knowledge of the mental development of the child. This search for scientific legitimacy caused tensions in the child study movement between the experts of the academy and the enthusiastic amateurs who attended its meetings. This conflict was recognised by Alice Woods, who thought that a major difficulty in creating a science from child study was the absence of people, 'who possess the trained and restrained powers of observation needed, the insight to discriminate between the relative values of observations made'⁵⁵

Child Study, the Sciences of Education and Psychology.

Writing in 1910, G. Stanley Hall claimed that 'child study, once ridiculed and despised, has spread to every highly civilised land and is represented by academic chairs and journals galore'⁵⁶ Whatever truth in this hyperbole there was, it did not reside in England. There, the reaction of the academy to the vogue for child study initially was quite favourable. Catherine Dodd, the Mistress of Method at Owens College Manchester, was convinced that child study was the way towards the production of a science of education. In 1898, she wrote in the *National Review* that, 'the time is not far distant when Pedagogics will have a recognised standing in our courses and the systematic observation of children will be part of the training of all who intend to teach children or examine them.'⁵⁷ At Manchester, child study was mixed with other psychological perspectives in a course entitled, 'The Mental and Physical Life of School Children'. The recommended texts for this course included those of James, Mark, and Drummond and the references which were given for child study included the work of Kirkpatrick, Thorndike, Warner, Preyer, Sully, Shinn and Hall.⁵⁸ At Sheffield, Green, who favoured the differentiation of experimental pedagogy from child study, taught a course on 'Modern Methods of Child Study' but elsewhere there do not appear to have been any other courses which specifically focussed on the area. Rather, it was the case that there was little work being done in psychology that had any direct bearing on education. Outside Manchester and Sheffield that which was being done in 1910, was almost all in the Galtonian mould. This consisted of Myers' work at Cambridge, that of McDougall in the laboratory at

Oxford, Pearson's work at the Biometric and Eugenics Laboratories at University College, Spearman's in the Psychological Department of the same college and the work of Brown at the Psychological Department of King's College.⁵⁹

Apart from these instances the only other work of this nature was that of Burt at Liverpool. By the 1920's however, most of the universities that provided diploma courses for secondary teachers included psychology in their syllabuses and many of these included child study. At Birmingham in 1926, for example, use was still being made of Sully's *Studies of Childhood* first published in 1895.

Despite the continued patronage of the journal, now named, *Child Study* by some of its members the stance of the academy overall remained critical. Not surprisingly the *locus classicus* for the expression of critical sentiments was the British Association for the Advancement of Science in which, due to the efforts of, Henry Armstrong, Section L or Educational Science emerged in 1901.⁶⁰ At the British Association meeting in 1906, its President, Sir Edwin Ray Lankester, declared that, 'the well-ascertained laws of experimental psychology will undoubtedly furnish the necessary scientific basis of the art of education, and psychology will hold the same relation to that art as physiology does to the arts of medicine.'⁶¹

While however, the Froebelians and the members of the Child Study organizations created an ideological climate within the pedagogic community which was favourable to psychology, their rank and file were repudiated by the academy.

One exclusionary move was Professor J.A. Green, of Sheffield University, taking

over the editorship of the newly founded *Journal of Experimental Pedagogy*. One clear sign that this journal represented upward status mobility was that it incorporated the *Training College Record*, which Green had also edited. The new journal aimed to give voice to what it described as, 'a movement which aims at the scientific examination of the principles which have hitherto passed as the basis of educational practice'.⁶² The *Journal of Experimental Pedagogy* represented an alternative pole of attraction for many who wrote for *Child Study* and, moreover, one which was based in the academy and not in a popular movement of lay rather than expert members.⁶³

Nevertheless, the founding of this journal did not bring about the immediate secession of the academy from the child study movement. Neither was there an immediate supersession of the folkloric questionnaire methods by the 'hard' science of experimental psychology or statistical analyses. Representatives of the academy, including Green, continued to publish articles in *Child Study* until its demise in 1920 and Cyril Burt published in the very last issue.⁶⁴

In 1905, Muirhead told the Child Study Association that the progress of child study was unsatisfactory as the only positions which had been won by the advocates of a science of education were in, what he called, 'the comparatively unoccupied field of infant education.'⁶⁵ Infants were schooled by women, who the mental tester, Ballard, labelled, 'minders of babies', and if they sought to legitimate their practices they did so in rationalist metaphysical, Froebelian terms and not those derived from what William James referred to as, 'brass instrument' child study.⁶⁶

The 'popular' movement of Child Study prompted many in the academy to call for a redrawing of boundaries and a redefinition of roles. Professor J. A. Green of Sheffield, for example, argued for a strict division of intellectual labour between teachers and academics. In 1908 he wrote that 'the teacher as such is not primarily a researcher, nor should he be. He wants the results of research in a usable form, and the University Department of Education should be organised with a view to provide them'.⁶⁷

Findlay, of Manchester University, who was usually an advocate of uniting theory and practice, argued that child studies, when conducted with what he termed 'real scientific ability', influenced schools greatly but that most teachers lacked that ability and so child study was beyond their reach.⁶⁸ Findlay was also a member of a committee of the British Association which reported on the 'Mental and Physical Factors Involved in Education' in 1909. This committee pronounced that much of the work done as a result of child study had, 'probably little permanent value, because it has been done by persons who are not adequately trained psychologists or are not competent educational practitioners'. Not surprisingly, given its composition, this committee agreed with one of its members, Dr Charles Spearman, the psychometrician inventor of the general intelligence or 'g' factor, that, 'the great need of the moment is the procural of facilities for research and the training of persons to direct it'.

One of the child study movement's most persistent critics was Robert Rusk. He had studied at the Cambridge Psychological Laboratory and had gained a doctorate at Jena and in 1910 he published a book entitled *Experimental*

Education which was a condensed translation of Ernst Meumann's survey *Vorlesungen zur Einführung in die experimentelle Pädagogik*⁶⁹ In his book, and an associated article in the *Journal of Education*, Rusk criticised 'traditional pedagogy' for being unscientific. The key test of scientificity in his view was the presentation of data and conclusions in quantitative terms. What he called, the 'new pedagogy' sought to do just that, as well as to be inductive and experimental. While he conceded that child study had contributed to 'advances' in education, he thought that overall its results were inadequate.

The democratic political implications of the new, science of education were pointed out by Rusk in a way reminiscent of Dewey in his, *Underlying philosophy of Education* first published in 1933.⁷⁰ The new method, Rusk wrote, would deliver the teacher from, 'the tyranny of tradition and the caprice of the faddist, and bring him under the servitude of his science, since the scientific worker must ever submit to the method of his subject. If it removes him from the domination of an arbitrary authority, it requires his submission to a rational authority, one that can be questioned and whose dicta can be verified by experimentation'.⁷¹

The criticisms of the Froebelian, Thomas Raymont, had a rather different complexion. Writing on some of the findings of child study which did not have any bearing on 'educational problems', he opined, 'All this is no doubt excellent anthropology, just as would be a statistical estimate of the preferences of adults as regards dancing, whist and ping-pong; but its pedagogic importance is equally unimpressive'.⁷² Echoing the views of the proponents of experimental education, he was far more sympathetic towards the reforming achievements of the

physiologists and anthropometricians, than to those whom he characterised as the 'numerous band of persons who collect children's writings and sayings'.

Physiologists like Warner and his colleagues had, he thought, 'demonstrated by facts that it is both a blunder and a crime to goad the half-fed and scantily clad children to be found in some of our primary schools into the same degree of mental activity as that displayed by their more fortunate fellows'.

This formulation provides evidence for the view that the crystallisation of the sciences of the child and of education out from their philosophical primordial soup was far from an automatic or preordained process but often involved sharp polemics, boundary disputes, ideological conflict and power struggles. As Bourdieu suggested, there is competition for recognition within scientific fields and for various types of capital.⁷³ This process also had a gender dimension as most members of the academy were male while women conducted most child study.

Child Study, Educational Psychology and the Transformation of Froebelian Knowledge

Paradoxically, given its empiricist orientation, many of those who joined the branches of the Child Study Association tended to be those most attached to Froebelian ideas and practices. In one account, the members were said to have been, 'teachers, parents, doctors, school managers, inspectors and social workers'. However, Professor Muirhead regretted, that, 'in some places the members consist, ... almost entirely of school teachers, and among these of the

teachers of young children.'⁷⁴

Although they were an important element in it, the Froebelians did not capture the Child Study Association. The dialectic between the Froebel and the Child Study movements produced effects on the Froebel movement too. The Froebelian journal, *Child Life* devoted much space to accounts of child study investigations particularly those of Earl Barnes. Froebelian theories were themselves undergoing a process of change stimulated in part by child study. In its encounter with child study, Froebelian knowledge was transformed. In the course of this, G. Stanley Hall's theorisation of play provided a theoretical basis for new educational practices. Specifically, the revisionist Froebelians⁷⁵ found in his work a warrant for their rejection of the kindergarten apparatus in favour of the child's own toys and found materials. They also used them to justify a revision of the orthodox, Froebelian view of the relation between the teacher and the taught. Maria Findlay, for example, declared that child study led to the view that, in the interests of checking the child's 'spontaneity' as little as possible, 'the teacher should rather suggest than direct and control'. Writing a few years later, the Froebelian school inspector, Henrietta Brown Smith speculated in a similar vein that, the direction of progress lies undoubtedly in less teaching, less adult organization, and more opportunity on the children's part for creative self-activity.⁷⁶

Notions like this were labelled 'revolutionary Froebelianism' by Mark in his discussion of trends in the United States.⁷⁷ Also called the 'free play' movement, its advocates argued that instead of using Froebel's directed and consciously

educative plays, the traditional games of children should be incorporated into the kindergarten. In Brown Smith's formulation, for example, there may be detected the potential for a permissive pedagogy which, after the appearance of psychoanalytic theories in the 1920s, began to gather momentum. The revisionist pressure for the reinterpretation of Froebel's views on children's play brought about by child study was strong as may be seen in Brown Smith's contention regarding the kindergarten that more and more should, 'the maxim of Froebel, interpreted by Karl Groos, permeate the whole institution: "Children do not play because they are young; they have their youth that they may play". It is on this that we should build the future.⁷⁸

Another leading Froebelian revisionist, Elsie Riach Murray, also adopted this strategy of allying Froebel to the new empiricist sciences. She introduced her book with the words,

The purpose of this little book is to show that Froebel's educational theories were based on psychological views of a type much more modern than is at all generally understood. It is frequently stated that Froebel's psychology is conspicuous by its absence, but in a somewhat close study of Froebel's writings I have been again and again surprised to find how much Froebel seems to have anticipated modern psychology.⁷⁹

Leaving aside the epochal dimension of Foucault's notion of the episteme, his notion of how what can be said is an effect of the episteme suggests the interpretation that Murray had perceived that the rules of scientific discourse had

changed and that Froebelian ideology had now to take account of the new rules of empiricist educational psychology, physiology and the sciences of education if it was to have any future.

Montessori, Positivism and Rationalism

While child study had an impact on the Froebelians mainly at the level of methods of producing and legitimating knowledge of the child, Montessori threatened their jobs, their kindergartens and their institutional apparatus of training.

The movement in the emergent field of education from rationalism inscribed within the philosophical approaches of Pestalozzi, Herbart and Froebel, to empiricism and positivism, which found its locus classicus in experimental psychology,⁸⁰ was a tendency recognized and identified by many contemporary actors. Nonetheless the meaningfulness of the transformation of knowledge had the consequence that they not only described the phenomena but, also constituted them. Their descriptions, in common with those of all social agents, were also to a degree, expressive of their social and professional interests.

Maria Montessori's understanding of the transformation represents a highly illustrative case of someone who not only recognized its occurrence, but also was a significant agent in its progress. Moreover, along with G. Stanley Hall, she was perhaps one of the most prominent and the most imbued with scientism, or an ideology of science, of all the leading actors of the New Education to announce the break with the past. Her first book, *Pedagogical Anthropology* based on lectures given in 1905 made clear that her orientation was primarily that of a

positivist who believed that through the observation and measurement of children it would be possible to attain, 'the supreme idea' of, the *purification of the world* and the *perfectionment of the human species*.'⁸¹

Montessori's aim, like that of Hall, was the transformation of education into a science, which had broken with the older 'metaphysical psychology'. She took medicine as her model of a field that had moved from a speculative stage to one in which its conclusions were based on, 'the positive results of experimentation', She wrote, 'Physiological and experimental psychology which, from Weber and Fechner to Wundt, has become organised into a new science, seems destined to furnish to the new pedagogy that fundamental preparation which the old-time metaphysical psychology furnished to philosophical pedagogy.'⁸² Her declared aim was the construction of a new science of experimental pedagogy in the belief that nothing extant was sufficient to the task.⁸³ She desired a clean break with knowledge from the past and a new beginning. She wrote, 'As soon as I knew that I had at my disposal a class of little children, it was my wish to make of this school a field for scientific experimental pedagogy and child psychology. I started with a view in which Wundt concurs; namely, that child psychology does not exist.'⁸⁴

She continued with a declaration of faith in the positivist belief in the measurement only of observable states and in empiricism untrammelled by the work of others,

Child psychology can be established only through the method of external observation. We must renounce all idea of making any

record of internal states, which can be revealed only by the introspection of the subject himself.My intention was to keep in touch with the researches of others, but to make myself independent of them, proceeding to my work without preconceptions of any kind. I retained as the only essential, the affirmation, or, rather, the definition of Wundt, that "all methods of experimental psychology may be reduced to one, namely, carefully recorded observation of the subject" ⁸⁵

This commitment was paradoxical for someone whose Catholicism and theosophical beliefs frequently coloured her writing ⁸⁶ and who strategically adapted her work for different audiences.⁸⁷ Significantly, Froebel was barely mentioned in *The Montessori Method* and when he was, Montessori's tone was almost always dismissive of him as, in her view, he failed the tests of the new sciences.

A similar attitude is observable in the work of the Gesells, the American experts on child development. They wrote of Froebel that, Froebel undoubtedly ranks among the deepest interpreters of childhood. He appreciated the value of play, and his writings are pervaded with the concepts of growth and development. But these concepts were derived from a half mystical, philosophical view; they are prophetic and intuitive rather than biological.⁸⁸

In the second chapter of their book, they contrasted 'the scientific interpretation of life', to 'the fruitless method of scholastic philosophy'. Furthermore, they recognized, as had Dewey, that the scientific interpretation supplanted if not

threatened some religious beliefs. In the past, they wrote, ‘the most elementary facts about the child as a psychophysical mechanism simply were not understood or were misunderstood. Theological conceptions such as the doctrine of child-depravity took the place of scientific interpretation.’⁸⁹ Unsurprisingly, in view of the fact that Arnold Gesell had been G. Stanley Hall’s student, the Gesells viewed the child primarily as a biological entity claiming that G. Stanley Hall was the child’s greatest modern student and ‘the Darwin of psychology.’⁹⁰ Also unsurprising given their attachment to G. Stanley Hall was an absence in their discussion of Montessori’s work of any reference to her claims to scientific status. For the most part, the Gesells seemed more concerned with the commercialization of Montessori’s apparatus, which was a major source of her income. Likewise, G. Stanley Hall raised money through the Summer Schools he organized at Clark.

Continuities and Discontinuities

This account of the transition from rationalism to empiricism raises the question of whether what has been discussed constitutes a break or discontinuity. Bachelard who has become associated with the term “epistemological break” advanced the notion that progress in science is marked by discontinuity. He almost never used this term but it was popularized by the one-time Marxist theoretician, Althusser who tried to assert a fundamental difference between the work of the younger and the older Marx. Discontinuity also underlay Kuhn’s notion of a paradigm shift whereby scientific paradigms were surpassed by others in the course of scientific revolutions.⁹¹

Foucault's notion of the episteme also illustrated the conceptualization of change in the sciences as discontinuous. In *The Order of Things* Foucault cautions that 'Establishing discontinuities is not an easy task even for history in general. And it is certainly even less so for the history of thought'.⁹² But he recognized discontinuity in the, 'fact that within the space of a few years a culture ceases to think as it had been thinking up till then and begins to think other things in a new way'.⁹³ In the case of the emergence of the field of education and that element of it considered here that referred to the young child there appears to have been no big break or rupture. Undoubtedly, Froebelian discourse was transformed but the old certainties appear to have been given a new discursive wrapper rather than any fundamental reconstruction taking place. The involvement of Froebelians in the Child Study movement suggests that traffic also moved the other way and that the positivists were always being drawn towards the rational pole of knowledge and the metaphysics they shunned. As Depaepe shows, in the case of experimental pedagogy, far from being objective, as its advocates claimed, they could not avoid the ingress of ideology.⁹⁴ At the risk of conflating rationalism, philosophy and ideology, a similar point was made by Vygotsky when, contrary to what Weber, Marcuse and Habermas argued, he explained that, 'since every form of education sets for itself particular ideals, goals, or norms, for that very reason it must deal with the philosophical or normative sciences.'⁹⁵

Theory

In his book, *Science of science and reflexivity*⁹⁶ Bourdieu discussed four

approaches to the sociology of science. Firstly, the structural-functionalist tradition associated with Merton. Secondly, Kuhn's notions of normal science, scientific revolution and paradigm which has been frequently adopted in discussions of the discipline of education in the period considered here.⁹⁷ Next he discussed the 'strong programme' associated with Bloor and Barnes and finally, the laboratory studies represented by Knorr-Cetina among others. Curiously, Against these approaches Bourdieu counterposed his theory of the field and its associated concepts scientific capital and habitus. This has not, as yet, attracted corresponding interest in studies of the transformation of knowledge that was attendant upon the emergence of the disciplinary field of education to that accorded to Kuhn. Yet there is much potential in Bourdieu's approach. Among its elements is the notion of a field as a, 'field of struggles, a socially constructed field of action in which agents endowed with different resources confront one another to conserve or transform the existing power relations'.⁹⁸ The child study movement and its impact on the Froebel movement can easily be conceived of in these terms. Habitus is another fruitful concept in the analysis of transformations in forms of knowledge. Gender has been referred to and was highly significant and habitus, in the aspect of the social origins of the actors and their impact on the playing of the scientific game has been well illustrated by Depaepe in his discussion of the rivalries between Meumann and Lay and Burt and Winch.⁹⁹ Similarly, Wooldridge notes how John Adams and Percy Nunn, two of his nine founders of educational psychology in England were outsiders relative to the metropolitan, professional elite.¹⁰⁰

Bourdieu's discussion of the autonomy of a field and the related matter of the force and form of the entry conditions imposed on new entrants is also suggestive of ways to understand the relation of child study to the project of the construction of the discipline of education along positivist lines. In this respect the attempted mathematization of the discipline can be seen as an exclusionary measure. This is not to describe its origin but merely to identify one of its social functions. On a broader front, as has been shown, the Child Study movement was the site of many struggles over distinction. While its founder, G. Stanley Hall was well endowed with scientific and cultural capital many of its participants were not. Even sympathetic members from the academy could be seen to be lacking in the necessary capitals, including material and institutional resources, to pursue their objectives of discipline formation. As Hearnshaw noted, with the establishment of academic departments of psychology, and the evolution of research tools and techniques' child study 'inevitably became outmoded.'¹⁰¹ This leaves the question of the nature of the relation of child study movement to the field of education and it is one that can be generalised to the wider question of the relation of the New Education to those fields as well. For Selleck, the scientific educators, among whom he counted Hall and many others who have been considered here, provided support for the New Education. Elsewhere, I have focused on the way the New Education's apparent embrace of an ideology of science as the key to social reform provided favourable conditions for the emergent disciplinary fields.¹⁰² A dialectical approach, as practised by Froebel among many others German idealist philosophers, does not pose the issue in

terms of stark opposites but accepts that the scientific educators provided support for the New Education which, in turn, created a receptive context for their new knowledge.

In a similar way the opposition between rationalism and empiricism can be seen to have resulted in a transposition of the dominant elements. Where once rationalism was dominant empiricism now took its place but rationalism did not disappear and thus there was no radical discontinuity. As the Hadow Report of 1933 on the infant and nursery school in Britain put it, 'the increasing recognition of the biological conception of life deriving ultimately from Darwin and his successors... has to some extent afforded a scientific foundation for many of the educational theories of Rousseau, Pestalozzi, Stow, Froebel ... which were primarily philosophical rather than scientific in origin and method'¹⁰³ a more rounded view would have concluded that the philosophical theories also did service for 'the biological conception of life'.

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