

Children of science: The Laura Spelman Rockefeller Memorial, Arnold Gesell and the making of the normal child.

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Belief in the power of science to solve social as well as individual problems was the driving force of the Laura Spelman Rockefeller Memorial's (LSRM) program.¹ After Beardsley Rumml's appointment as Director of the LSRM in 1922, the work of the Memorial concentrated on the support and development of programs in social sciences and social technology, in child study and parent education, and for studies in the field of race relations. Affiliated with ideas of the progressive movement, its direction was designed to engage science in the management of social and individual welfare and to base political and economic decisions on rational and objective scientific results and methods. The further development of child welfare along these lines was a central part of the Memorial's mission. The LSRM program officer Lawrence K. Frank was assigned this task and was particularly interested in child development. Children were at that time already understood to be key to a prosperous future and a democratic society. A general interest in the child, its development and welfare had already led to certain changes and improvements of living circumstances, such as the prohibition of child labor, implementation of compulsory schooling, juvenile courts, and professional social and hygiene workers. Organizations like the Federation for Child Study, later renamed in Child Study Association on behalf of L. K. Frank, pursued scientifically informed child rearing and education practices. When the LSRM began to support their activities in 1923 the women of the association were "already engaged in putting together a great deal of scattered information and translating technical research reports into popular language."²

The first years of investments in child study were exploratory in nature. A 1924 Memorial report stated that "there is great diversity of opinion and counsel in the field and this indicates the need of careful scientific investigation."³ Thus, the plan was on one hand to invest in child research to find out more about the nature and needs of child development and growth, and further, to organize and disseminate this scientifically gained knowledge for practical application in order to be useful for parents and teachers to gain a better understanding of their children. The assistance the Memorial gave to agents in the field of the study, education and welfare of children consisted of financial support as well as organizational and personnel selection advice and especially networking activities. In the following years, the report suggested, two main propositions should guide the support of research and knowledge distribution: work in this field should be preventive rather than remedial, and the work should have the

greatest influence possible on child welfare. This implied a focus on parents and teachers of the “normal” child. First, because parents and teachers were supposed to have the greatest influence on children and thus on child welfare. Second, to reach as many children as possible it seemed necessary to concentrate on the majority of the population which was the normal child, not the small percentage of lost children in need of special treatment.⁴

This policy of the LSRM concerned far more than a few single research and education projects. With its broad range of activities, the foundation was influential for an emerging and interwoven field of child developmental research, developmental psychology, pediatrics, genetics and scientific child rearing in North America but also abroad. The 1920s and early 1930s became flourishing years of child sciences and welfare. What once had been started as the child study movement by early psychologists, educators and progressive reformers now evolved into a more coordinated program under headings such as child development research, child guidance and parent education. The Committee in Child Development functioned as a headquarters for the whole field, a sign of the beginning institutionalization of a science of child development. It was established by the National Research Council in 1925, but in collaboration with and financed by the LSRM. As early as 1923 the idea evolved within the LSRM to establish a few leading centers of child welfare research with a wide geographical distribution. Those flagships of scientific child welfare would undertake scientific research, the preparation of teaching materials, the training of leaders for child study work, and demonstrations in the practical organization of parent and teacher groups. Finally, the Memorial counted six major national research centers of this kind which also fulfilled high administrative standards of being semi-independent of their universities and employing a fulltime director and staff. In addition, several other institutions received funding but didn't meet the requirements necessary to be selected as an exclusive child development research center. Three of those centers were initially founded with support of the LSRM. L.K. Frank in particular was involved in the whole process of their creation: suggesting ideas for field study and utilization, helping to form a balanced program that fitted the Memorial's aims, recommending directors and researchers for employment, and even giving advice on research technologies or suggesting direct exchange with other researchers working on similar problems. Only two university centers existed before they were chosen by the LSRM for the

child study program, namely the Iowa Child Welfare Research Center and the Yale Juvenile Psycho-Clinic, later renamed in Yale Clinic of Child Development.⁵

Director and founder of the Yale Psycho-Clinic was Arnold Gesell, a physician and psychologist who received his PhD at Clark University under the wings of the father of child studies G. Stanley Hall and his MD at Yale School of Medicine. While still in medical school Gesell started his psychological child clinic in 1911 in a single room that the Dean of the School of Medicine could spare for him. This was the beginning of Gesell's lifelong devotion to a better understanding of the development of infant and child and human growth in body and mind. When he retired as director of the Clinic in 1948 he was a leading authority in the fields of developmental psychology, pediatrics and child guidance. The first time he received financial support of \$2,000 for the work of the Yale Psycho-Clinic was in 1923, followed by \$1,800 in both 1924 and 1925. President Angell of Yale had asked Beardsley Rummler for financial support towards the clinic because Gesell needed an additional person to help him with the case studies and excess work. Angell it seems wasn't inclined to fund any additional costs from the University budget.⁶ Though still at an early stage, this attitude of the Yale officials remained consistent throughout Gesell's time at Yale: In the whole spectrum of science and medicine, child development research and its application wasn't a priority when it came to budgetary decisions or other rivalries. Gesell's position at Yale wasn't an exception; child studies in general had a problematic scientific standing. The program of the LSRM tried to challenge this unfavourable situation by encouraging basic research to develop and test scientific methods. Those methods and correlated theories would lay a foundation to study the child as a whole being and its development as a complex combination of integrated functions. At least in the opinion of Lawrence K. Frank new theoretical and methodological approaches were needed to address the problem of human growth. He distinguished five main variations of child research: field investigation and statistical studies of the child population; clinical case studies; administrative testing, measuring and examining; research in life sciences using children as subjects; and the child developmental research he wanted to strengthen by means of the LSRM. He admitted that "the findings and techniques of the life sciences are indispensable to child development research". But he disliked that growth was inferred from statistical averages of the successive age groups and was mostly connected with only one particular function under

investigation: “The aim of child research in the life sciences is to establish uniformities or norms, or to construct indices of development, for particular aspects of the child.” The child development research that he had in mind would applicate “diverse scientific techniques to the individual, growing child in order to portray the development of that single organism.”⁷ Thus, child development researchers concentrated on enhancing their data, preferably using empirical methods combined with clinical techniques. They mined huge amounts of data, but often did not succeed in analyzing the data and in transforming the results into usable knowledge which could be shared with others.

At that time Arnold Gesell published the monograph “The Mental Growth of the Pre-school Child” (1925). The book received credit for being the first systematic attempt to delineate the psychology of normal infancy. With 200 appealing photographs and film stills the book paved the way for an LSRM appropriation in 1926, acknowledging the Yale Psycho-Clinic as one of the major child research centers. The Memorial especially approved Gesell’s plan to use motion pictures for research and education purposes. Therefore, in 1926 Gesell was able to start his investigation of developmental norms of infants and pre-school children and the promotion of his ideas on development and scientific child rearing by the means of film. According to Gesell, behavior was the “visible essence” of mental proceedings, and film was the ideal tool to observe and analyse the laws of mental growth in human development. He developed new observational and analytical techniques based on motion pictures. His “Photographic Dome”, the method of “Cinemanalysis” or the “Photographic Research Library” gave his research on children a new scientific standing and opened up cinematographic possibilities for the education of professionals and parents. This was of the same tenor as the Memorial’s mission, and moreover, met a general desire for educational films in all scientific and educational branches. Educators were discovering the value of motion pictures for education. The General Education Board (GEB) of the Rockefeller Foundation invested time and money to further explore the possibilities of the emerging medium film and got involved in organizing projects and institutions such as the motion picture project of the American Council on Education. Lawrence K. Frank, who in the meantime had been assigned the position of associate director of the GEB, commissioned Arnold Gesell’s staff member Alice Keliher with the study of “The Use of Cinema in Education” for the American Education Survey, which was prepared by the GEB in 1932. At the

same time Keliher still worked on the motion picture project for the Yale Clinic of Child Development. Director Gesell seems to have made a clever decision by assigning Keliher to this task. Frank, who was responsible for the survey and also for the child study program, mentioned in his memorandum about the interview he had with Gesell and Keliher in January 1932 a critical point in the whole situation: “If Doctor Gesell must bring his present motion picture experiment to a close on July 1, 1932, then Miss Keliher will have to devote all her time and energies to completing as much of the work as is possible in that period.” The funding of Gesell’s work was going to end in July of the same year, and he was still waiting for a positive decision on an additional appropriation. “Without in any way indicating an intention of bargaining on this point, Doctor Gesell said that he wanted to emphasize the interdependence of the two projects,” because only then would his staff member find time for the survey.⁸ In the end, the additional support for the clinic was granted and Keliher could conduct the educational film survey for the GEB.

When Arnold Gesell first implemented his plans to work with motion pictures he started by constructing observational recording facilities: A Photographic Dome, enwrapped with a one-way-vision screen, equipped with a special clinical crib and other examination equipment. He needed cameras with silent cases, a cameraman and technician and reliable companies for film supply and development. This was the technical set-up to collect data for a normative study of developmental norms in infancy. In addition, he needed technical equipment and a reasonable method for analyzing as well as for storing these amounts of film material. He realized that he also would need a library system to register all films and index the data if he ever wanted to use it again. Soon Gesell and his team got totally involved in their motion picture activities. In an interview with L. K. Frank, Gesell pointed out that the records are “so valuable that at the present time the major energies of the clinic are focussed upon the study and analysis of these records which they find superior to direct contact with actual children”.⁹ Gesell had stated that he used them exclusively to complete the normative studies of developmental stages in the growth of infants. In 1930 the Yale Clinic of Child Development produced its first educational talking film “The Study of Infant Behavior” with Erpi Picture Consultants Inc. The film had two messages: Science uses objective and advanced techniques to contribute to the understanding of the child and human growth, and normal development follows predictable laws and

can be supported by good guidance of children and parents. Parallel to the production of this first successful film Gesell completed another cinematographic research study called naturalistic survey. He built a homelike studio to observe and record the behavior of infants and their mothers in daily life situations like sleeping, feeding and bathing. The study focused on individual behavior, complementary to the normative investigation in the Photographic Dome, and at the same time delivered excellent material for appealing films in order to educate parents, nursery teachers and other child professionals in child care, child guidance and basic developmental principles. Gesell used the naturalistic film material for research purposes and prepared a major book publication with film stills as printed illustrations. But the GEB, which had taken over the obligations of the LSRM to support the Yale Clinic of Child Development and had added a special grant for further educational film production, reminded Gesell of the demand to provide motion picture material for other researchers and educational purposes. The preparation of film material was time-consuming, just as much as the test demonstrations of preliminary edited films in front of different audiences which Gesell once had indicated and now was compelled to do. The work proceeded slower than expected. When L.K. Frank finally found out about Gesell's plan to produce a series of ten child development talking pictures together with Erpi and release them under the copyright of the commercial company, he tried to convince Gesell and Angell to stop this arrangement. His reservation concerned the commercial distribution of educational films by Erpi. In his opinion, the Yale Clinic's educational films were supposed to be free and accessible for a broad use in schools, colleges and parent groups. But Arnold Gesell stuck to his partnership with Erpi to obtain the highest possible quality in narrative, aesthetic and technical matters and at the same time to guarantee a professional international distribution. A high rental fee promised the prospect of high royalties to supplement the budget of the Yale Clinic of Child Development. Though Frank and the GEB weren't in a position to prevent the contract between Yale University and Erpi, Frank nonetheless insisted that Gesell must at least deliver free of charge teaching films for the Emergency Relief program of the New Deal. The governmental program required teaching materials for newly established parent education groups and in the end Gesell provided the bulk of this parental guidance material for nationwide use. With the release of the Erpi series of Yale Films of Child Development in 1934 Gesell was counted among the experts in educational motion pictures and his films became the standard

teaching and demonstration material for child development and guidance. Not only did his films become famous all over the nation, they also helped Arnold Gesell himself to gain a popular reputation as the expert for child development, cited by every newspaper and sought after by advertising companies and Hollywood film producers.

The year 1936 changed Gesell's fate at least in the Rockefeller Foundation. Lawrence K. Frank left the General Education Board and the responsibility for the child study program was transferred to Alan Gregg who had so far been in charge of the medical research and medical education program of the Rockefeller Foundation. While Frank, despite all the difficulties he encountered with Gesell, shared after all a specific idea about child research and developmental concepts with him, Gregg was not very impressed with Gesell's work. He stated that 15 years ago Gesell's ideas were new and substantial contributions to his field, but that he had missed any further development since then. He questioned Gesell's excessive and almost tedious insistence upon his way of studying growth and development. Nevertheless, Gregg accounted the "remote possibility that his work may be far better than his contemporaries believe it to be" and decided that a "lump sum grant" over five years would bring Gesell in a position to formulate and publish his findings without any interference with his point of view. This would be the best form of terminating the support.¹⁰ Though Alan Gregg lacked belief in the success of this action, this final grant promoted Gesell to become probably the most influential and best known child expert in North America before Benjamin Spock. The books Gesell published in the last five years of philanthropic support had worldwide impact on education principles and child rearing, and on a preventive developmental approach by pediatricians. Initiated by philanthropic program officers, who believed in the power of science for a better society, child development researchers investigated norms of child development and scientifically created the ideal normal child. This child was formed with words and pictures and spread across the world. They were children of science, working for the betterment of man.

¹ This research report is based on findings in the collections of the Rockefeller Archive Center, including the Laura Spelman Rockefeller Memorial records (LSRM), FA061; the General Education Board records (GEB), FA058; and the Rockefeller Foundation records (RF), FA112 and FA368.

² Memorandum: the executive committee and director to the board of trustees, The Laura Spelman Rockefeller Memorial for the year October 1, 1923 to September 30, 1924, Folder 15, Box 396, Series 2, FA061, Laura Spelman Rockefeller Memorial records (LSRM), Rockefeller Archive Center.

³ Memorandum: the executive committee and director to the board of trustees, The Laura Spelman Rockefeller Memorial for the year October 1, 1923 to September 30, 1924, Folder 15, Box 396, Series 2, FA061, Laura Spelman Rockefeller Memorial records (LSRM), Rockefeller Archive Center.

⁴ Memorandum: the executive committee and director to the board of trustees, The Laura Spelman Rockefeller Memorial for the year October 1, 1924 to September 30, 1925, Folder 15, Box 396, Series 2, FA061, Laura Spelman Rockefeller Memorial records (LSRM), Rockefeller Archive Center.

⁵ American Education Survey: Child Research by Lawrence K. Frank, July 8, 1932, Box 1, Vol 2B, Series 7, FA058, General Education Board records (GEB), Rockefeller Archive Center.

⁶ Letters Ruml and Angell, 1923; Memorandum Frank of interview with Gesell about Child Study Program at Yale University, January 20, 1925, Folder 492, Box 47, Series 3.5, FA061, Laura Spelman Rockefeller Memorial records (LSRM), Rockefeller Archive Center.

⁷ American Education Survey: Child Research by Lawrence K. Frank, July 8, 1932, Box 1, Vol 2B, Series 7, FA058, General Education Board records (GEB), Rockefeller Archive Center.

⁸ Memorandum of Interview Frank with Gesell and Keliher, 1932, January 19, Folder 3792, Box 366, Series 1.3, FA058, General Education Board records (GEB), Rockefeller Archive Center.

⁹ Memorandum of Interview Frank with Gesell, December 9, 1932, Folder 6610, Box 636, Series 1.4, FA058, General Education Board records (GEB), Rockefeller Archive Center.

¹⁰ Interview of Gregg with Gesell, October 20, 1938, Folder 3925, Box 376, Series 1.3, FA058, General Education Board records (GEB), Rockefeller Archive Center.