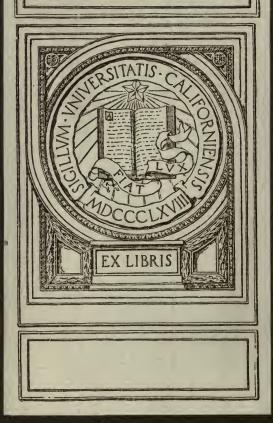
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### EXCHANGE



## **EXCEPTIONAL CHILDREN** AND THE ONLY CHILD IN THE FAMILY

EUGENE W. BOHANNON

A Dissertation submitted to the Faculty of Clark University, Worcester, Mass., in partial fulfilment of the requirements for the degree of Doctor of Philosophy, and accepted on the recommendation of G. STANLEY HALL.

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EXCHANGE

### EXCEPTIONAL CHILDREN AND THE ONLY CHILD IN THE FAMILY

BY EUGENE W. BOHANNON SOMETIME FELLOW IN PSYCHOLOGY, CLARK UNIVERSITY

Success in teaching depends largely on an intelligent appreciation of the individual aspect of human life. truthfulness of this assertion is too obvious to require justification. At the same time educational practice has not been influenced sufficiently by the knowledge which a better understanding of individuality will supply. The following study was undertaken with the desire of satisfying a personal need and in the hope that some contribution might be made to the knowledge of the conditions which determine character. In the last analysis the problem involves a consideration of the relative influence of the two most general factors of biological existence, viz., heredity and environment. It is believed that some of the conclusions presented throw additional light on certain phases of the relationship between these two factors.

The original material used was supplied almost exclusively by a select body of students under competent supervision and in response to two questionaires, one asking for information concerning Peculiar and Exceptional Children and the other relating to the Only Child in a Family. In response to the first a few over a thousand reports were received, and to the second a few less than four hundred.

The following is the first syllabus:

I. Think over your own childhood and consider if you were a striking illustration of any of the following types, and if so, describe your case:

II. Consider if you have any friends who would come into any of the classes below, and ask them to describe their own cases.

III. If you have children of your own; or if you are a teacher, and any of your pupils, past or present, are strikingly exceptional, describe them.

IV. If you are a college or normal instructor, explain very fully what is wanted, and ask each pupil to describe one or more such cases in a composition, essay, or a theme in psychology.

V. State the salient points concerning any exceptional children.

V. State the salient points concerning any exceptional children you have ever read about, whether fact or fiction, referring to the source if you can.

The following are types suggested to select from, but any

other will be welcome:

1. Physical. Exceptional beauty or ugliness; largeness or smallness; any bodily deformity; conspicuous scars or traumatic

lesions; defects of sense or limb, as dimness of vision or slightly

lesions; defects of sense or limb, as dimness of vision or slightly under normal hearing, weakness of spine, legs or arms, etc.; exceptional strength, agility, clumsiness or deftness, or gifts of sense; any other marked physical peculiarity.

2. Psychical. A child of exceptional courage or timidity; cleanliness or dirtiness; order or disorder; obedience or disobedience, truth-telling or lying; cruelty or sympathy; selfishness or generosity; loquacity or silence; frankness or secretiveness; buoyancy or despondency; daintiness or gluttony; a blase or otherwise mailed whild; a doubtor, investigator or or critical an unity and buoyancy or despondency; daintiness or gluttony; a blase or otherwise spoiled child; a doubter, investigator, or critic; an ugly and ill-tempered child; a careless, easy-going or a fastidious child; an inquisitive, imaginative or poetic child; a teaser or hector; a nervous child; a querulent, whining child; a dignified and self-poised child, or one who acts habitually with self-abandon.

It is not a description of one or more of the above traits that is wanted, but an accunt of one or more individual cases where one trait or group of traits is so marked as to color the entire character of the child, to be known to all who see much of it, to therefore, bear on the child's future career.

Note in each case, if you can, whether the trait is hereditary; in which parent, how far back it can be traced, and how marked it was in the ancestry. To this point the greatest importance is attached, and it should receive special attention.

Give, briefly, specific acts or instances of the manifestation

of this trait.

State how each case has been treated at home and in school, and how you think it should be treated.

Always describe each case with the greatest conciseness and

with the greatest fidelity to fact.

state sex, nationality, complexion Always age, and temperament.

The number of individuals described was 1,045, of whom 613 were females and 432 males. The number of types represented in the reports was 43, and the average age of the individuals referred to, below that of early manhood or womanhood. The forty-three types were finally arranged in three groups, the first including the individuals whose peculiarities should be regarded as advantageous; the second those whose peculiarities should be regarded as disadvantageous; the third those whose peculiarities should be regarded as neutral.

Those belonging to the group having peculiarities regarded as advantageous were the tall, heavy, strong, stout, agile, deft, beautiful, clean, generous, sympathetic, buoyant, courageous, orderly, obedient and those having keen senses. Those whose peculiarities have been regarded as disadvantageous were the small, deformed, ugly, nervous, clumsy, bodily-weak, dirty, ill-tempered, timid, whining. disorderly, disobedient, cruel, selfish, gluttonous, spoiled, and those with sense, mental or speech defects. The peculiarities regarded as neutral in value were those characteristic of the buffoon, the frank, loquacious, inquisitive, dignified, silent, imaginative and dainty.

In the study of the different types within any of the three groups it was found desirable to consider smaller groups in order to show similarity and contrast. Thus the large, including the tall, heavy and stout, were very generally found to associate with, and to be dressed like, older children in order to escape undue attention. The behavior of others toward them was determined more by the consideration of stature than of age. This attitude of others and the association with older children resulted in premature development, at least in certain respects. On the other hand the small, for a similar reason, associated with younger children and were very generally dressed so as to appear younger than they really were, while the attitude of others toward them was determined more by their stature and less by age than should have been the case. The inevitable result was retarded development, at least retarded mental and social development. Too much was expected or required of the large and too little of the small.

The strong were generally leaders and enjoyed a liberal measure of approval while the weak were often timid and disposed to behave in a manner intended to protect them against the attention resulting from the peculiarity. The agile and the deft, like the strong, received more than the usual degree of favorable regard though they were not so often leaders. The clumsy reacted to the attention bestowed upon them in much the same manner as the weak. The beautiful were noticed to a marked degree and supplied the best example of the injurious effects of an excess of approbative attention. The ugly and the deformed also were noticed unduly and the consequences were unfavorable, but for a different reason. The undue attention accorded the beautiful most often resulted in exaggerated and unwarranted self esteem; that given the ugly and deformed quite as often resulted in discouragement and selfdepreciation.

Special ability in the realm of the senses or unusual mental capacity was generally conducive to approbation which had the effect of developing conceit and priggish self-importance. Some of the reports of such individuals were suggestive of an approximation to an abnormal, if not a pathological, condition. The lack of ordinary ability in these respects, or the presence of some defect in speech, sometimes had the effect of causing the individual to shun society. Such cases show the need for special treatment and instruction, of a kind which the ordinary public school is not able to supply.

The nervous child, so-called, very often had delicate health and an unstable constitution, not infrequently supplying an example of mal nutrition. They were not unlikely to be timid, sensitive, changeable, meddlesome and, occasionally, untruthful. These characteristics were undoubtedly due, in part, to a lack of self-control. The clean and the dainty were very much alike and had many traits in common with the orderly and obedient. They were characterized as orderly, obedient, truthful, slow, fussy and critical. They were not seldom delicate, quiet and dignified and lacking in bodily vigor. The silent and the dignified were quite similar, the one to the other and to the clean and the dainty. They were described as clean, neat, orderly, obedient, timid and particular. Timidity and silence were often mistaken for dignity. The children of this type showed a marked preference for companionship with older persons. The orderly and the obedient had much in common with the clean and the dainty, as has been indicated. Those who were orderly were clean, slow, patient, punctual, truthful; the obedient were characterized in like manner and, not infrequently, as timid. The dirty, the disorderly and the disobedient are kindred types. Individuals of each were reported as destructive or boisterous or violent in temper and not lacking in vigor and energy. The ill-tempered were often peevish, discontented, nervous, delicate, lacking in balance, self-control and stability.

The frank, the loquacious and the inquisitive were found to have many characteristics in common. Members of each group exhibited a certain lack of self-control and of the power of inhibition. The loquacious were frequently nervous, restless, conceited, forward and spoiled, while the inquisitive were often merely restless and curious.

The courageous were generally strong and healthy. They were often quiet and reserved as well as obedient and generous. They were admired and often became leaders. The timid, on the other hand, were frequently frail and nervous. In some cases the peculiarity appeared to have been the result, either directly or indirectly, of some harrowing experience or of having heard ghost stories. Obviously there was a physical basis in many instances for the peculiarity.

Both the buoyant and teasing possessed abundant energy. The first were more inclined to be generous and sympathetic; the second were sometimes cruel. The buffoons were exuberant, easy-going and often generous. They

usually received and enjoyed favorable notice.

Most of the cases of cruelty seemed to have their origin in the exercise of power over weaker living things. It was most frequently manifested towards small children, the smaller and young animals and insects. In some instances it appeared to be a consequence of having witnessed the slaughter of animals; in others it was thought to be the result of cruel physical punishment in the homes. often associated with the habit of teasing and the two traits appear to be closely allied. Selfishness also was often a prominent characteristic of the cruel though it appeared to be quite as much a resulting as a causal influence. cruel were often the gluttonous, the over-indulged, the spoiled and sometimes the untruthful. They were especially numerous in the group of the forty-six only children to be referred to later. The individuals who were described as generous were nearly always sympathetic and there is some suggestion of a connection between these two qualities and delicacy of constitution. Both the generous and sympathetic were general favorites and were also frequently subjected to impositions of various sorts.

Imaginativeness was mentioned in many of the reports relating to the only child in a family and was frequently ascribed to a lack of companionship, which resulted in the creation of imaginary companionship. Some of the individuals seemed to indulge in the practice because of a desire to expand the personality. There was some evidence that the exercise of this power or interest is not unlikely to result in the practice of deception and lying. Lying was undoubtedly closely akin to it in many instances, at least in certain of its forms. However, it was associated, in many cases, with other qualities, such as selfishness, timidity, weakness and imitativeness.

In the general consideration of the various types it was found that over 60 per cent of the individuals in the group designated as advantageous were reported as inheriting the peculiarity, about 10 per cent as not inheriting and 24 per cent were not accounted for in that respect. Of those classified as having disadvantageous peculiarities, 28 per cent were reported as inheriting, 45 per cent as not inheriting and 33 per cent were not accounted for. Of the neutral, 57 per cent were said to inherit and 17 per cent not to inherit the peculiarity, while 39 per cent were not accounted for.

A comparison of the percentages for these three groups shows that inheritance appeared to be most influential in determining advantageous peculiarities, somewhat less so

in determining those of the group called neutral and least in the case of the disadvantageous. The necessity for great caution in basing conclusions with reference to heredity, on these reports, is obvious. Yet, after making liberal allowance for possible prejudice, lack of knowledge or carelessness on the part of those making the reports, the evidence warrants the inference that the characteristics referred to as advantageous are far more likely to be transmitted, in their likeness, than are those of the opposite kind. This conclusion harmonizes with the views of most of the best students of human degeneration. The influence of heredity is positive and in line with progressive evolution. The hereditary factor is most prominent in those cases of transmission which exhibit the greatest resemblance between parent and offspring. A strong inheritance, the presence of advantageous qualities in the parents, is the best guarantee of likeness in the offspring. In transmission, advantageous characteristics are more potent than the disadvantageous.

Fere<sup>1</sup> says: "If the degenerate fails to give origin to beings that resemble him, it is not because he has acquired the special faculty of transmitting characteristics that do not belong to him, but because degeneration is the dissolution of heredity. \* \* \* The want of resemblance in descent observed in pathological and teratological families evidences the want of embryogenic energy which is so accentuated in those families as to end in sterility in a few generations. \* \* \* By degeneration should be understood the loss of the hereditary qualities that have determ-

ined and fixed the characteristics of the race."

Disease and defect usually undergo modification in transmission, following what has been called the law of dissimilarity, while health and healthy peculiarities are not subject to such marked variation and follow the law of similarity in transmission. The movement of degeneration is regressive; that of heredity, in normal individuals, is progressive. Degeneration is the reversal of heredity and ordinarily its extent is indicated by the degree of variation from the ancestral type. Fay<sup>2</sup> found in his study of the marriage of the deaf in America a higher percentage of deaf offspring for the unions in which one parent was deaf than in those for which both were so. He found also that sterility was more common in the marriages with both

Morbid Heredity, Popular Science Monthly, July, 1895, p. 396.
 Marriage of the Deaf in America, American Annals of the Deaf, Jan., Feb., April, June, 1896.

parents deaf and that it was most prevalent when both were congenitally deaf. Williams, in his study of 590 marriages, with one or both partners deaf, found that 280 of these were barren of children; that 5% per cent of the children born to the congenitally deaf fathers and adventitiously deaf mothers, 13% per cent of those born to congenitally deaf mothers and adventitiously deaf fathers, 12% per cent of those to congenitally deaf fathers and hearing mothers, and 18½ per cent of those born to congenitally deaf mothers and hearing fathers, were deaf. These figures not only confirm the view that degenerative influences weaken the power of heredity, but they also appear to confirm the view that the mother is the more influential factor in transmission, a conclusion suggested by the analysis of the reports on which the present study is based

Sedgwick<sup>2</sup> says: "The fact that a larger number of deaf children are, or appear to be, born to parents only one of which is deaf than when both are, may be due to excess having reversed the action of natural law in development."

It is a noteworthy fact that still-births and early deaths are abnormally common in such families, and it seems impossible to escape the conclusion that as degeneration progresses the potency of the factor of heredity is diminished, and that, to that degree, the triumph of environment is assured. It is not without significance, in this connection, that the defects most likely to be transmitted in their likeness are those which are not incompatible with fairly or quite normal health, such as supernumerary toes, fingers, teeth, the plurality of births, color-blindness, hair-lip, squint, premature baldness or prematurely gray hair. If these are signs of the existence of degenerative tendencies, they are but mildly so and do not indicate a condition sufficiently grave to interfere seriously with the production of like by like.

One of the most interesting results of the examination of the reports on peculiar and exceptional children was the discovery of the relatively large number of only children among them. It was definitely stated in 46 cases that the individual described was an only child, though none of the questions in the syllabus referred to such a type. Since

<sup>&</sup>lt;sup>1</sup> Hereditary Deafness: A Study, Science, Vol. XVII, p. 76.

<sup>&</sup>lt;sup>2</sup>On Sexual Limitation in Hereditary Disease, British and Foreign Medico-Chirurgical Review, London, Vol. XXVIII, p. 204.

the number of reports was 1,045 and 46 of these referred

to only children one of every 22 was an only child.

Ansell's1 statistics for families in England and Wales show that one in 78 of children generally is an only child, and that one family in 13 is a one-child family. Perhaps the percentage of such children and such families in more recent years is quite a little higher but, that granted, it is quite apparent that the degree of liability to peculiarity, on the part of the only child, is out of all proportion to the relative number of such children among all children. Furthermore, it was found that two-thirds of the 46 only children belonged to the types embraced in the group having disadvantageous traits and that the health conditions of the parents of these 46 were below normal. These facts and suggestions, together with the fact that the reports on peculiar and exceptional children furnished more material relating to heredity, made it seem desirable to secure more comprehensive information concerning the only-child class which would at the same time bear more directly on the determining influence of environment. With that thought in mind the following list of questions was sent out, under conditions similar to those mentioned in connection with the questionaire on peculiar and exceptional children:

Give age, sex, nationality, and describe the temperament, complexion and general health of the child briefly. Has he brothers and sisters dead? If so, how many? Is he the first born? How long did the others live? Does the child go to school? Regularly? Commenced at what age? Get along well with other children and in work? How much time does he spend in play? The favorite games? What plays at home? What are the child's best traits? Worst traits? Is he precocious or dull? Has he mental or physical defects? Name them. What subjects best in? What poorest in? What has been the home and school treatment? What treatment do you recommend?

Age of parents at birth? How long had they been married at birth of child? Are the parents still living? Health, habits, occupations, temperament and position in life. How many brothers and sisters had they? Do they (brothers and sisters) have good health? In so far as above questions apply, describe twins, the only boy, the only girl and the youngest child, in families. State anything else you may think due to the fact that they are the only child, only boy, only girl, the youngest child or twins.

The number of reports received in response to the questions was 435. This number combined with the 46 on only children previously referred to, gives a total of 481 reports. Of these 383 refer to only children, 54 to only boys or only girls, 32 to the youngest child in a family and 12 to twins.

<sup>1</sup> See Duncan's Sterility in Women, p. 4.

The persons making the reports regarded as only children not only those who had never had brothers or sisters, but those also who had been left alone by the early death of others, or who were the only children for a period of years, before the birth of others. In the case of the latter the environment was quite like that of the only child, for the dead brothers and sisters seldom lived more than a year, nearly always dying in early infancy. Furthermore, the surviving child was not the first born in more than half of the instances. Several of the one-child families were so because of divorce or the death of one parent. Any statistical references that follow relate to only children alone, unless otherwise indicated.

The average age of 134 girls was almost 13; of 86 boys, somewhat less than 12, and for both the average was 12½ years. The youngest was 2 and the oldest 35. Five were 3 years old, 6 were 4, 4 were 5, 10 were 6, 15 were 7, 24 were 8, 22 were 9, 32 were 10, 19 were 11, 26 were 12, 17 were 13, 21 were 14, 8 were 15, 24 were 16, 15 were 17, 15 were 18, 7 were 19, 7 were 20, 2 were 21, 3 were 22, and 1 was 31. The relative number of males and females was about as 4 of the former to 5 of the latter. The reports supplied information relating to the nationality or race of the parents in 240 instances. It was stated in 190 cases that the parents were Americans. The parents in the other 50 were non-American and in 17 instances the father and mother belonged to different races or nationalities.

The more important and distinguishing peculiarities of these children, including those relating to health, school, home and social life generally, the interests and activities revealed in play and games, together with the mental and moral peculiarities, can be understood and appreciated much better after a perusal of some of the reports of individual cases. A number of the most typical have been condensed and are presented herewith. In making the condensations the original draft was modified as little as possible though quotation marks were not used except in one or two

instances.

Male. Twelve years old. Irish. Sanguine. Health fairly good, but must take care not to drink tea, coffee or other stimulants. Neither can he eat much vegetable food without feeling great discomfort. He is the first-born, but had a brother who lived to be three and one-third years old. Began school at six and attended regularly. He gets along with some of his friends quite well but with others he disagrees. Spends much time in play, which is active at school but quiet at home. He is truthful and dislikes sham; also stubborn, and given to contradiction of his elders. He is precocious. The right leg is paralized from the

hip down. Both at home and at school he has been allowed too much of his own way. The mother was about twenty-five, and the father thirty-three, at the time of his birth. They had been married two years, and are still living. The mother has good health, the father only fair. Both have good habits and are conscientious in the discharge of duty. The father is a railroad station agent and the mother helps him in this work. He is of a billious temperament, while she is sanguine. The mother has four sisters and two brothers, the father two brothers and two sisters. All seem to have good health.

Ten years old. German-American parentage. Male. father is a German of culture from a well known German University. The mother has one brother living and one, who was very delicate, dead. She is herself a chronic invalid and never, as a girl, took any interest in life. She is cultured and refined but lacks the will to do. Her only object now seems to be to properly rear her boy, who was an unwelcome addition to the family and for years was tolerated out of necessity. The mother-love seems to have asserted itself finally. The boy attended kindergarten at five, had a private tutor at six and entered the public school at seven. He speaks German and French as well as English, and also plays the piano well. Is a real girl-boy, sews, makes tiny doll dresses, cuts and fits them, sews on sleeves and puts on belts. He has whole sets of bed clothes, pillows and mattresses stuffed with cotton, and the pillow cases made on the machine. He is a sturdy, manly fellow, always taking his hat off as he enters the room, speaking in a soft voice, and taking part in conversation. He begged to be allowed to stay at home this week to help sew, because I was helping his mother with her sewing. He does not like school and seldom plays with boys; he says they are too rough and fight, and are not nearly so nice to play with as girls. He says boys tease him because he likes girls better, but that he does not care. He seldom quarrels with his playmates and is good and obedient generally. He is usually happy but sometimes becomes annoying by reason of the numerous questions he asks. comes annoying by reason of the numerous questions he asks. He has rather definite and advanced notions of what he is to be when he grows up. The mother seems to admire and honor her very intellectual German husband and is a model wife, but she does not seem to have any love for any one save the boy. She was never happy with her own mother and feels she was never understood by her, hence she thinks it very important for her to avoid the mistakes from which she suffered. The mother feels her duty very strongly and is in danger of overdoing the watching, and of making him too dependent on her own frail self. He is very different from other boys I have met."

Female. Eleven years old. American. Nervous. Delicate. takes cold easily, and cannot stand much hardship. She is the only child born to her parents. She began school at seven and attends regularly except when ill. She does not get along well with other children, but succeeds fairly well in work. Not much time spent in play, which is always of a quiet sort. Her best traits are obedience and politeness; her worst is thinking herself better than other children. She is neither dull nor precocious, yet quite studious. The mother, especially, is very strict, but her teachers have usually been more considerate. The mother was thirty-five, and the father thirty-seven, at her birth. They had been married five years, and are still living. The father has good health, but the mother has always been delicate, and since the birth of the child has been an invalid the greater part of the time. The father is superintendent of a railroad. The family occupies a good social position. Both parents are nervous. The father has one half-sister, the mother, two brothers and two sisters.

Twelve years old. American. Nervous. She has very poor health and is sick a great deal. She has three sisters and one brother who died before her birth. Only one of these lived to be five years old. She commenced school at seven, and but for bad health her attendance would be regular. She has little or no trouble with other children, and succeeds well in her work, as she is very studious. She plays little and in a quiet way. best traits are truthfulness, obedience and affection; the worst is bashfulness. Precocity is very noticeable. The home treatment has been characterized by great indulgence. The father has always rais been characterized by great indusence. The latter has always called her "Baby." At the birth of the child the ages of the father and mother were thirty-six and thirty-four respectively. They had been married 14 years. Their health is very good as are also their habits. The father is a dairyman. The mother, with hired help, keeps the house. They both have irritable temperaments. The mother has four sisters and two brothers; the father, five sisters and two brothers. Two of the mother's sisters have bad health, and the father's brothers and one of his sisters do not have good health.

Female. Nine years old. American. Nervous. Not robust. takes cold easily, and seems unable to resist disease. Has never had brothers or sisters. She began school at 7 but has not attended regularly on account of bad health. Her relations with other children are troublesome. Success in work is fair. She plays a great deal and has much company. The games are usually those demanding considerable activity. The best traits are truthfulness and affection; the worst are selfishness and passionate temper. She is very precocious. Has been greatly indulged at temper. She is very precocious. Has been greatly indulged at home, and is a favorite with the teacher. She ought to be required to "give up" to other children. At the birth of this child the father was twenty-seven and the mother twenty-eight. They had been married two years. Both are still living, but the mother is never in good health. Their habits are good; the father is a partner in a general merchandise store. His temperament is sanguine, and that of the mother, nervous. The mother has one sister, and the father one brother. These have good health. The child is an only grandchild, and is subjected to the combined indulgence of grandparents, uncles, aunts, etc. One of the grandmothers lives with the child's parents, and always intercedes when any strictness is suspessed. any strictness is suggested.

Female. Eight years old. American. Nervous. quite poor. She is subject to severe headaches, and in the winter time to bronchitis and croup. There have been no other children. She first went to school when seven and has not attended at all regularly. The desire to have her own way has prevented her from getting along well with other children. In her work she succeeds fairly well. When alone she plays little and generally inclines to the imaginative games. She tries to impersonate different characters. She is sympathetic and affectionate, but also selfish and disrespectful. She is also precocious. Parents have humored her. Ought to be thrown with girls her own age. father was thirty-three, and the mother thirty-five, when she was born. They had been married twelve years. They are still living, but the father is subject to very severe attacks of rheumatism. The temperament of the mother is nervous; that of the father bilious. They live on a farm. The mother has two brothers and two sisters; the father one sister and seven brothers, all of whom have

fairly good health.

Female. Nineteen years old. American. Nervous. General health is good, but she is subject to a kind of "fits." There have been no other children. School attendance is regular and began at nine. Her success in work was good. She got along well with other children, and in play her favorite pastime was to seat herself on a box and imagine herself a queen. At home she could usually be found sewing for her dolls or playing with them. Her best trait was her good temper; her worst, lying and stealing. Precocity was marked in action and words. There was a slight turn in the left eye which was very noticeable at times. At home she had her own way and was consequently frequently in need of restraint at school. The mother's age at her birth was twenty. She had been married over a year. The father is dead—died of heart disease. He had one brother, while the mother had two sisters. They seem to have good health.

Male, Fifteen years old. American Phlesmatic, Scena to

sisters. They seem to have good health.

Male. Fifteen years old. American. Phlegmatic. Seems to have good health, yet the sight of blood always causes him to faint. There were never any other children in the family. He commenced going to school at nine and attended regularly, though he does not now attend. He had little trouble with other children. He seems to be affected mentally and does not progress very well in school work. He is exceptionally dull. He spends considerable time in play, and at home the play most often is imitative of the various trades. The treatment, both at home and at school, seems to have been considerate. His father was twenty-four, and his mother twenty-one at the time of his birth. They had been married about one year. They are both still living but are separated. The father is delicate and a drunkard besides. Neither parent has had brothers or sisters. had brothers or sisters.

The above are fairly representative of almost 100 reports. The health was generally described by use of the three expressions, "good," "fairly good" and "bad." One hundred sixty-two belonged to the first class, 98 to the second and 96 to the last. That is, 96 had bad health and 98 others did not have good health. The disorders of health most often mentioned were: lung trouble in ten instances, heart trouble in five, St. Vitus Dance in five, exaggerated cases of nervousness in ten, "very delicate" in thirty and paralysis in one, while chronic susceptibility to headaches, throat troubles, nose bleed, colds, indigestion, catarrh, eye troubles and convulsions, were frequently mentioned.

Still other evidences of impaired health were added under the head of "physical defects." Ten were deformed. Some of the deformities were: club-foot, weak legs, hunch back, spinal curvature and cross eyes. Fifteen had very weak eyes, four were deaf in one or both ears, three blind in one eye, five had grave disorders of the vocal organs. one was hydrocephalus, and one a paralytic. Others were "hair-lipped," "flat-footed," "pigeon-toed," "had one side undeveloped." A total of forty-eight had physical defects of one kind or another.

A great variety of terms was used in describing the temperament, but it is sufficient to say that it was described as "nervous" in 133 out of 258 cases, or something over half of the number for whom the temperament is indicated. No other expression descriptive of temperament was used more than 42 times.

In 80 of 249 families, for which the information was available, there had been at least 120 other children, the largest number in any one case being five, all of whom were still-born. In 42 of these eighty families the surviving child was not the first-born. Of the entire 120, 9 were stillborn, 20 lived only a few hours or days, 46 others less than a year, 6 not more than a year, 3 not more than 2 years, 3 less than 4 years, 2 less than 5 years, 2 less than 6 years, 6 less than 7 years, 2 less than 9, and three died at ten, twelve and fifteen years. It will hardly be claimed that so large a proportion of the children of families in general die at corresponding ages, and that the early deaths of so many do not signify degenerative tendencies of a very pronounced sort. Besides it must be remembered that the 120 deaths represented only such as were known to the individuals making the reports. That there were others cannot be doubted. Yet, with this number, the proportion of all the children born to the 249 families, who died at the above mentioned ages, is 31 per cent, or about 320 per 1,000 for the years 1 to 9 inclusive. Nevertheless, in the absence of other evidence, it cannot be asserted that the rate is greater than the normal.

Thirty-two of the 242 fathers were dead, as were also 23 of the 248 mothers. The father's health was said to be bad in 58 of 245 reports, and that of the mother so in 100 out of 239. It appears, therefore, that in so far as bad health in either parent is a factor in the limitation of the birth-rate, the mother is of far greater importance than the father. Gross¹ presents statistics showing that women are sterile about eight times as frequently as men.

Thirty-one parents among those of 249 families had consumption, dying of it in most of the cases. Twenty-two were so weak and delicate that they were called invalids, 18 suffered from nervous prostration, 8 had heart trouble, 5 were insane, while there were many reports of grave female disorders and not a few of paralysis, rheumatism and cancer. There were many other disorders of a serious character mentioned at least one time each. The frequency with which consumption and cancer were noted seems to harmonize with the observations of many writers on the subject of fecundity, that cancer and tubercular diseases are especially conducive to sterility.

The temperament of parents was described as "nervous" in 134 instances out of 249. Forty-three was

<sup>1</sup> See Duncan's Sterility in Women, p. 3.

the greatest number described by any other single expression. There were 37 cases, out of 226, in which one of the parents was an only child. Seven of these were among 108 fathers of girls, and 9 among 76 fathers of boys, while 13 belonged to 120 mothers of girls and 5 to 76 mothers of boys. The only-child parents of girls are more often mothers than fathers, while the opposite is true for parents of boys. There are 17 only-child fathers and 20 only-child mothers. Whether this is a greater ratio than would be found to prevail among parents generally cannot be determined from the data available, though it seems that it must be considerably greater since Ansell found that one of every 78 children was an only-child.

The average number of brothers and sisters which both the 209 fathers and 226 mothers had is 3%. Adding one to this, we have 41/2 as the average number of children for these families, or nearly two less than the average which Ansell found for 1,767 families. The average number of brothers and sisters of 108 fathers of girls is 3% and of 120 mothers of girls is 31/4, while that of 76 fathers of boys was 2% and of 81 mothers of boys 31/3. the mothers of girls came from smaller families than the fathers. On the other hand the fathers of boys came from smaller families than the mothers.

The health record of the brothers and sisters of the parents, though not indicated in a very considerable number of the reports, showed 30 consumptives, 5 insane, 4 cancerous, many cases of heart trouble, several invalids, several nervous and mental wrecks and numerous early deaths. Although sufficient data for a comparative estimate is lacking, it is difficult to avoid the inference that the health was

inferior to that of people generally.

The average age of fathers at the time of the birth of 149 girls was 32% years; of the mothers of 157 girls it was 261/2, the two averages showing a disparity of about 6 years. The average age of fathers at the time of the birth of 86 boys was 28; of the mothers of the same number of boys it was 24% years, the average difference being 3% years. The average age of the fathers at the time of the birth of 235 of both sexes was 30.5 years and that of the mothers of 242 of both sexes 25.5, the average disparity being 5 years. It is perhaps significant that the mean age of parents at birth of boys, 28 for fathers and 24% for mothers, was noticeably lower than that of parents at birth of girls, which was 32%5 for fathers and 26% for mothers. Perhaps it tends to confirm the view that the

children born in the later stages of relative sterility are more likely to be girls than those born in the earlier stages.

In 218 marriages the mean length of time that had elapsed between marriage of parents and birth of the first child was approximately 3.5 years. For 29 of these the time between marriage and birth was one year, for 54 it was 2 years, for 39 it was 3, for 14 it was 4, for 17 it was 5, for 5 it was 6, for 10 it was 7, for 2 it was 8, for 3 it was 9, for 5 it was 10, for 2 it was 11, for 6 it was 12, for 1 it was 13 and for 2 it was 14. Ansell¹ found in 6,035 marriages that the first birth was within 1 year after marriage in 3,159 cases, within 2 years in 2,163, within 3 in 421, within 4 in 137, within 5 in 69, within 6 in 26, within 7 in 21, within 8 in 11, within 9 in 7, within 11 in 5, within 12 in 4, within 13 in 13, within 14 in 2. A comparison of these figures with those given above for the 218 marriages will show the degree of variation from the normal time that elapses between marriage and the birth of the first child. For 106, or nearly half of the 218, this time was 3 years or more, while at the corresponding time for Ansell's 6,035 marriages only about one twenty-first part had not resulted in children. That is, only 1 in 21 of the 6,035 couples had their first child after 3 years, only 1 in 39 after 4 years. Duncan, in commenting on Ansell's table, states that parents who have been married 16 months and are still childless, are exhibiting signs of relative sterility, and that after the fourth year has been entered upon without children there is a presumption of persistent sterility. With this in mind the significance of the fact that the average length of time after marriage at which 190 first-child only children were born was about 31/2 years, becomes apparent.

There were a number of very early marriages reported, 1 with the mother at 11 and several as early as 15. There were also a number of marriages occurring near the end of the reproductive period for one or both parents. It is generally claimed that the best years for reproduction are those from 24 to 35 for women and 30 to 40 for men. We should infer, therefore, that children born to parents of other ages will have poorer health as a rule, an inference which ought to be employed in accounting for the poorer health of so many of the children under consideration. Apparently the strain of too early child-bearing often exhausts the girl-mother's stock of vitality without producing a healthy child and is likely to result in the early loss of

<sup>1</sup> See Duncan's Sterility in Women, p. 19.

fecundity. While child-bearing near the end of the reproductive period may not be so injurious to the mother's health, it appears to be quite as unfortunate for the child. Thus 12 of the 32 youngest children, their average age being 11, had bad health. Of these 12, 2 had convulsions, 2 lung trouble, 1 kidney and eye trouble, while 4 were weak and delicate. Mitchell¹ found among 433 idiots that 138 were first-born and 89 last-born. Duncan² is inclined to think that the only child, especially if born near the end of the reproductive period, is more likely to be a girl, and to represent the last effort of the stock to perpetuate itself. The greater average age of the parents of the girls in these reports seems to confirm his view. In the same connection he refers to Galton's study of 1,000 English heiresses, one-fifth of whom had no male children at all, a third but one child and three-fifths not more than two children.

The habits of the parents were said to be bad in 40 instances. There were 20 confirmed drunkards and many drinkers, several of whom were mothers. Five fathers were excessive smokers. The work of five mothers was thought to be unfavorable to child-bearing. Five others were immoral. Over-fondness for society and late hours were mentioned 8 times and there were 8 divorces reported. The occupations were mainly sedentary and, therefore, in-door. The families referred to were predominantly middle-class.

#### IN RELATION TO SCHOOL.

Female. Ten years old. American. Nervous. Has good health, but the parents thought her sickly and were continually giving her medicine. She is the last born of four children, three of whom died in infancy. Her school attendance commenced at four, but was very irregular until she was ten. If she disliked the school she was allowed to stay at home for a while and then try another. She gets along very well with other children and also in school work. Not much time is spent in play, as most of the time is taken up by music. When alone her favorite amusement was with her dolls. Unselfishness and affection are the best traits, while self-will and a bad temper are the worst ones. Precocity is pronounced and she is always ready with an answer. She has been allowed to do about as she pleased at home and has also been favored at school. The father was twenty-seven, and the mother twenty-five, at her birth. They had been married four years. The father, who was a consumptive at the time of his marriage, died when she was small. He had two sisters and the mother one. These had good health.

Male. Fourteen years old. American. Very nervous. Not healthy; had asthma till twelve but is better now. He is the second-born of three children, one of whom was dead at birth. The other lived three years. Commenced going to school at seven,

<sup>1</sup> See Duncan's Sterility in Women, p. 62.

<sup>&</sup>lt;sup>2</sup> Ibid, pp. 66, 67, 68, 69.

but has not attended regularly. He does not do well in his work or get along well with his play-mates. Much time is spent in plays which are usually those that boys most often enjoy. He is generous. He is also deceitful. The treatment has been rather severe. The father was thirty-five and the mother thirty-two at the time of his birth. They had been married three years. Both are still living. The mother does not have good health, and is club-footed. The father has good health, but is near-sighted. He is an excessive smoker. The mother's character is not good. Shad two sisters and he had several half-brothers and sisters. All of these seemed to have good health.

Male. Twenty-three years old. American. Equable. Has very good health now, but when about 15 was afflicted with St. Vitus dance. Has had no brothers or sisters. He attends school regularly, having entered at seven. He did excellent school work, but is indifferent towards other children. Instead of playing he would sit in the Navy Yard and examine machinery. Seems to have no bad traits. He has been indulged both at home and in school. He has been too much under the influence of his mother, and is very effeminate. At the time of his birth the father was twenty-seven and the mother twenty. They had good health, but the father is intemperate. The mother had two brothers and two sisters; the father two sisters. These have good health.

two sisters; the father two sisters. These have good health.

Male. Seven and a half years old. American. Irritable. Is not a very healthy child, but this is probably due to his not being allowed to play out in the open air as much as other children. He is the only child his parents have had. Until this fall he was taught at home by his mother, but now attends the graded school. His attendance is regular. The other children delight in teasing him and he gets along better with the girls than with the boys. He is very slow in his school work. His favorite games are those that can be carried on in-doors, for which the real boys have called him "the girl-boy." He is not talkative, but is sly and willing to blame others for his own mis-doings. Is also selfish and wants his own way in playing. He is not very bright and one cannot help noticing the dreamy expression of his face. His home treatment has made a baby of him, while the impartiality of school life does not please him. The trouble rests with his parents. The father was forty-three and the mother forty-one when he was born. The former has one brother and one sister; the latter three brothers and one sister. These seem to be in good health. The father is deaf.

Male. Ten years old. American. Nervous. He has a bad throat and is quite delicate. Is large for his age. He began going to school shortly before he was six years old and attends regularly when his health permits. If the other children do not yield him his own way he will not play. He is quite bright in his studies, but has to be encouraged very often. Active plays, and those in which he can win, suit him best. He has many moods. Sometimes he is pleasant, but more often very disagreeable. He is deceitful and has a bad temper. He is quite precoclous. The vocal organs are defective and he stammers in his speech so that it is difficult to understand him. It would be well if he had more play-mates and were compelled to share with them. The ages of his parents at the time of his birth were thirty-seven and thirty-nine years. They had been married twelve years. They are in good health. The mother had one sister and six brothers.

Sixteen of 272 who were of school age, did not attend school, while 74 of those who did attend were very irregular. Many were allowed to remain at home whenever they wished, others were kept at home whenever the weather was at all threatening and still others were allowed to attend

first one school and then another. Quite a number had private tutors at home and a yet larger number attended private schools. Frequently they did not begin going to school until several years later than the usual time for children to enter. Two began at 3 years of age, 7 at 4, 36 at 5, 78 at 6, 81 at 7, 24 at 8, 8 at 9, 4 at 10, 2 at 11 and 2 at 13 and 14 respectively. The average age for entering school was 71/2 years. Bearing in mind the fact that kindergarten attendance was included it is apparent that these children entered school between two and three years later than is usual. This may have been due, in part, to their poorer health, but it must be attributed mainly to the unwillingness of parents to send them earlier. Perhaps also, they were not so anxious to begin as those having older brothers and sisters. It would seem, however, that the only child should be more anxious than others to start to school because of the promise of increased companionship. Certainly they are more timid about making the transition from the home life to that of the school.

The answers to inquiries concerning their interest and progress in the different subjects of study pursued in school yielded but little information. It was stated that 117 were poorest in arithmetic and that 78 were best in the same subject. No other subject was mentioned more than 41

times.

#### PLAY AND SOCIAL LIFE.

Female. Eight years old. American. "Self reliant, but especially sensitive to rebuke. Well developed physically and without any defect except weak eyes. She had been accustomed to play alone or with older persons. One morning, about two months after she had entered the kindergarten, the children were taking their seats as usual at the conclusion of the preliminary exercises.

—— had taken pains to reserve a chair by her side. On noticing the vacant chair, I told J—— to sit by M——. Several of the children said, 'But M—— will not let any one sit there. She says it is for her friend.' After a moment's thought I recalled that she had greeted me that morning with, 'Miss—, I have a little friend with me!' Seeing no child, I had supposed the mother, who very often spent half the morning in the kindergarten, would bring the little friend later. I also remembered that she had a vacant chair by her during the story in the circle. I called her to me and asked her to tell me what she meant. She said I had told them they might bring their little friends to school and that she had brought hers. I told her I did not see him and asked where he was. He was in the dressing room, she replied. We went out to bring him in. On the way out she talked all the time, explaining that it was a little boy friend with whom she played at home. On reaching the dressing room she ran to the other end of the room, pretended to take hold of a child's hand, who was a little younger than herself, and led him to me. I pretended to shake hands and asked his name. It was J——. We took off his wraps. We then led him into the school room, M—— holding one hand and I the other. She pulled out the reserved chair and seated the imaginary J——. M——'s

manner was very matter-of-fact. While she was seating her little friend I told the others that M—— had brought a little play child, a little make-believe boy, to spend the day with us; that he was not even a doll dressed as a little boy and that we should try to see what a happy time we could make them have. Some of the faces expressed disapproval, others of them looked at her as if there was something uncanny about her, while others started to make fun of her. They were easily checked, and so the imaginary J—— spent the day. He was given the same material to work with, M—— doing his work as well as her own. He played the games with us, M—— insisting that the children take his hands in the game. She pretended to show him how to hop like the birds, etc. She shared her lunch with him and, when ready to go home, put his wraps on. Before she started I called her in, telling her at the same time, to leave J—— in the dressing room. Taking her on my lap I asked her if they had had a happy day. She replied, with a bright face, that they had. After telling her I was glad they had, I said, 'but, M——, J—— is not a real boy, is he?' 'No,' she replied, 'but I play with him at home.' I then tried to persuade her that she had to do so much for him that she could not give any time to her real friends, told me she had several imaginary friends, but two special ones, a little girl and a little boy, J——. She spent so much time with them that they were uneasy and had sent her to the kindergarten with the hope of having her forget them. They said she usually announced the fact when she wished to take them out with her, but that, on the occasion above alluded to, she had falled to do so. Her happiest hours were spent in this way. She continued to play with these imaginary companions at home, but never again, in the four years that I had her, did she refer to J——. She was always ready to 'make up' a story about the house she had built, etc. She was especially good at illustrating stories that had been told to her, on the blackboard.

"She has a good healthy disposition in most respects, but is mean and little about some things. She will share her lunch with others very grudingly and hold on to old things long after they are of no value. Her grandmother gave her, on her sixth birthday, a 'companion,' containing pencils, paper, etc. She had been using an old and worthless one which I had supposed she would throw into the trash basket, but she gave it to A——. Soon after I heard her tell A—— that she would have to return it, as she had only pretended to give it to her. I tried, by means of persuasion and explanation, to have M—— understand that it was now no longer hers, but observed at the close of the day that she took the 'companion' home with her. She said it was one she had had for a long time and that she could not part with it. (Such conduct was often excused by means of sentiment.) Another time a penny belonging to one of the children was left on the table. Some of the children saw M—— take it. She denied having done so, but a prolonged conversation with her caused her to find the penny. She said she thought it was hers. I never regarded her as untruthful or untrustworthy. She was certainly fussy and over-particular."

Male, Seven years old. American, Nervous. Has bronchial

Male. Seven years old. American. Nervous. Has bronchial trouble. Has never had brother or sister. He entered school at five and has attended regularly. He is backward with other children, but succeeds fairly well in work. He spends much time in play, at school, playing much the same games as other children. He is selfish, yet obedient. He is also precocious. The home treatment has been good. The mother was twenty and the father twenty-two at his birth. They both had good health. The father has three sisters and one brother, the mother six sisters.

Female. Nineteen years old. American. Sympathetic temperament. Health usually very good. I had an older sister who

lived a little more than three years. Entered school when about eight, and have attended regularly. I never got along very well with a number of girls, but generally wanted just one friend to be with most of the time, and even yet I would rather go with just the one. Liked to go to school and succeeded very well, but found it hard to settle down to work. Never cared for such playthings as other children had. The games at home were usually quiet, such as matching cards, jacks, etc. I was patient but lacked self-reliance, for others had usually done for me what I did not care to undertake by myself. I was humored by my mother, with whom I spent a great deal of my time. At my birth she was twenty-five and my father twenty-four years of age. They had been married four years. My father is a farmer, and does not have good health. He has no brothers or sisters, but my mother has four brothers who enjoy good health.

mother has four brothers, who enjoy good health.

Female. Eleven years old. American-Jew. Nervous. Has had no brothers or sisters. Health good. She attends a boarding school and is regular in her attendance, which was begun at will not play unless she can have her own way. She plays a great deal. At home she places books on chairs as pupils and, with another book in her hand, she addresses the chairs as her pupils. She also likes to play theatre, pretending that she is a ballet girl. Her home surroundings lead to this. She is kind and symmethatic but also contrave to an armonic of the contrave to the same of the chairs as her pupils. sympathetic, but also contrary, vain and precocious. The loss of sight in one eye and a broken arm were caused at birth. She has been surrounded generally by adults who have petted and spoiled her. The parents were each about twenty-five at her birth and had been married about two years. They have good health. Both are excitable and nervous. The mother keeps a boarding house. The father is an accountant.

Male. Eighteen years old. American. Irritable. Has good health. He entered school at seven and attends regularly. With health. He entered school at seven and attends regularly. With other children he is always striving for the mastery and consequently does not get along with them very well. In work he is slow. He spends much time in play. He enjoys playing with pets. He tells many improbable stories. One of these was about a lion and a tiger fighting in his back yard. He saw them from his window, put on his hat, went out and killed the lion, which was about to conquer. He is affectionate, but very selfish also. Has too much home indulgence. The father's age at his birth was thirty-eight, that of the mother thirty. They had been married three years. The father has good health; the mother is excitable. Three sisters of the father died in infancy and only one of his two brothers is now living. The mother had three brothers of his two brothers is now living. The mother had three brothers

and two sisters. This boy has an only-child cousin.

Out of a total of 269, there were 134 who did not get along well with others, 54 only fairly well and 81 who seem to be normal in this respect. When they disagreed with other children it was usually because of a desire to rule. If they failed in this they were likely to refuse to associate with the children who caused the failure. They were very likely to choose younger companions whom they could control or older ones who were willing to be indulgent. Many did not care for a large number of associates and selected one or two for friends with whom they preferred to spend most of their time. They did not in many instances enjoy being in crowds, and were inclined to keep out of games and very often remained in-doors to visit with the teacher. A marked preference for the company of older

people was manifested, even when every opportunity for association with younger persons was present. No doubt this was due less to a dislike of younger company than to their inability to understand, and be understood by, children of near their own ages. It is plainly evident that they had much the same longing for society as the children of other families, but their isolated home life had failed to give them equal skill and ability in realizing their social interests. They did not understand so well how to make approaches, how to concede this thing and that and were not so likely to fall readily into companionable relationship with those who were unaccustomed to yield more than half to others. The greater intimacy with parents certainly contributed to premature social development in certain directions.

They were very often imposed upon, notwithstanding the willingness which many of them displayed to practice impositions on others. There were, of course, not a few who were entirely normal in this respect, but they were the ones who had played more with children of their own ages, had had more sensible treatment at home and enjoyed more vigorous health. Quite a number seemed to begin to overcome these limitations at the age of puberty.

That they were not less anxious for companionship than other children was shown in the rather common practice of indulging in imaginary companionship, of which there were about fifty well defined cases. Miss Vostrovsky¹ found in the study of a number of such cases that a dislike of solitude and a longing for more appreciative and sympathetic relations with others, were the chief factors in their development. The ones reported in the present study appear to have had such an origin.

There was evidence in many of the reports to warrant the assumption that only children, as a class, have more than ordinary power of imagery. This is an inference, however, which does not harmonize with the views of Baldwin, who says: "And while he (the only child) becomes proficient in some lines of instruction, he fails in imagination, in brilliancy of fancy." On the other hand, Sully states that his studies have lead him to a conclusion directly opposite to that arrived at by Baldwin.

<sup>&</sup>lt;sup>1</sup> A Study of Imaginary Companions, Education, Vol. XV, p. 383.

<sup>2</sup> Mental Development, p. 358.

<sup>\$</sup>Studies in Childhood, p. 39.

Of 244, there were 138 who spent the usual amount of time in play at school, 44 who gave less time to it, and 62 who played little or none. Many of the 62 stood around and watched others play, showing little inclination to join in active games. They preferred the quieter forms of play and often liked to be alone. If left to their own choice they were not unlikely to be found in the school room with their teachers during intermissions. It was stated in a number of the reports that the boys preferred to play with the girls, at strictly girls' games, such as keeping house with dolls, and that they generally came to be called "girl-boys." As a rule they amused themselves in quieter ways and appeared to take less pleasure in noisy games of any sort. It was mentioned very often that they devoted a considerable amount of time to reading and that they were disposed to resent the intrusion of others upon their privacy. Those who joined in active play at school fell back into quieter ways at home.

Their best traits, in the order of frequency of mention, were affection, honesty, obedience and generosity. The worst traits, in similar order, were selfishness, "spoiled," temper, jealousy, untruthfulness, stubbornness and haughtiness. The most prominent characteristics were precocity, mentioned in 134 cases out of 238, selfishness in 94, imaginativeness in 48, affection in 40, jealousy in 25, mental defects in 23, temper in 23, self-will and vanity in 20.

The only boy, only girl and youngest child resemble the only child in many respects, particularly those which relate to the home environment and treatment. It appears to be true also that the youngest child, like the only child, is liable to lack in bodily vigor. Individuals of each of the three classes were quite generally indulged by the parents. The effects of such behavior on the part of the parents were generally more unsatisfactory in the case of the only boy, or at least so it appeared. Kolrausche,1 who made a study of "Jugendspiele und Einzelsöhne" in the Kaiser Wilhelm Gymnasium at Hanover, observed that the only sons entered into movement plays less regularly, if at all, than the other boys. Observations of the games, (especially foot ball) participated in by the pupils from unter tertia to prima, showed that of the 70 with brothers 47 per cent entered into the games regularly, 16 per cent irregularly and 37 per cent exceptionally or not at all. Of the 68 only sons, 13 per cent took part regularly, 12 per cent irregularly

<sup>&</sup>lt;sup>1</sup>E. Kolrausche. Zeitschrift Für Schule Gesundheitsflege, Vol. IV., p. 178.

and 75 per cent not at all. The only sons showed a greater number of bad athletes. Kolrausche concluded that the home environment of only sons is not satisfactory and that the "Jugendspiele" should be made compulsory.

#### PRECOCITY.

Male. Sixteen years old. American. Nervous. He is naturally delicate and is kept up only by the most constant attention. He has never had brothers or sisters. He entered school at six and has been regular in his attendance. In his earlier school days and has been regular in his attendance. In his earner school days he did not get along well with the other children, especially with boys, who did not like to play with him because, as they said, he had to tell his mother everything. In school work he succeeded especially well. He would join in most of the games at school, but usually withdrew when any roughness made its appearance. This may have been due to his physical condition, as he had poor eyes and spinal curvative. The home treatment was of a nature to develop a marked religious tendency. This has grown so that his mother goes to him as she would to an older person to discuss religious topics in which she is interested, and she finds that he talks remarkably well about such things. His teachers always treated him with a great deal of respect. He never gave them cause to treat him otherwise, for both his conduct and work were far above the average. The father was thirty and the mother twenty-five, at his birth. They had been married four years. Both have delicate health. The father has two sisters and two brothers. These latter do not have good health.

Female. Nervous. Nine years old. American. Is troubled with heart disease. Has never had brothers or sisters. She entered school when seven and has attended regularly, succeeding very well in the work. She is precocious. Her ways are those of older people and she is in a class of pupils at school who are from two to five years older than she is. Her parents are quite strict with her and treat her as if she were grown. The father was thirty-one and the mother thirty-two, at her birth. They had been married three years. Their habits are good. The father is a lime agent; the mother was a teacher. The father had two

brothers and two sisters; the mother had none. Female. Eleven years old. American. Nervous. thought to be quite delicate and great care is taken of her. She is kept in a warm room and seldom allowed to go out. She is often sick and under the doctor's care. She has never had brothers or sisters. She has a governess and has never attended school. She has few companions of her own age and associates mainly with grown-ups. She talks and acts in a grown-up manner. she plays with other children she gets along with them reasonably well, but she does not care to run or take part in active sports. She likes her lessons and is quick to learn. She is affectionate and obedient, doing everything she can to please her parents. Her parents give her a great deal of attention and gratify her every wish. They are always planning something for her, and do not like to have her away from them. It is my impression that she should associate more with persons of her own age. Her parents

should associate more with persons of her own age. Her parents were both about thirty years of age at the time of her birth. The father is a lawyer and the family occupies a good social position.

Male. Twenty-two years old. American. Nervous. Has never been robust. He entered school at eight, but did not attend regularly for several years because his mother was always anxious about him whenever he was out of her sight. As he became older and, as she thought, better able to take care of himself, his attendance grew to be quite regular. He enjoyed the society of other boys, but his mother determined the amount of time he should devote to play and as a result he played less than he desired.

Fortunately for him he was fonder of reading than of anything else and when other boys were out on the street he was with his books. He made remarkable progress in his studies and even his games were those which had some connection with literature, history, etc. His best trait is his fondness for his mother. During the last two years, while away from home, he has written her an average of three letters a week. He has no bad traits. He was always coddled at home and as his early school work was with an aunt for a teacher, it is safe to say he was petted in school. It has always appeared to me that he should have had more of the free out-door life of other boys; yet he has turned out to be a good boy and others have not. The father was twenty-five and the mother twenty-three, at his birth. They had been married a year. The father died when the boy was nine years old. The mother is exceedingly nervous. She had one brother. The father had four sisters and two brothers. The boy's submission to maternal whims has made him a subject of many jokes, but he does not mind them.

Female. Nine years old. Dignified. Was an old fashioned kind of girl. If you had talked to her as to others of her age she would have been insulted. Would come into our house, sit down and talk like some little old woman. Never cared to play with children of her own age. If she could not find older girls to play with she would visit with the mothers of the children, rather than play with the younger ones. Her peculiarities in this respect seem to be due to having been too much with older persons. She had spinal trouble when young; was a cripple for a while and not allowed to play with others for fear of being hurt, hence she did not care for children when older. She was petted a great deal at home and treated as if a great deal older. Disagreeable to an extent and wanted her own way. Did not go to school.

Although these and other examples of precocious or premature mental development were undoubtedly the result mainly of the social environment there is reason for thinking that the physical condition was especially favorable to the development of such prematurity. The lack of vigor, the prevalence of nervous instability and other physical shortcomings supplied the conditions which predispose to precocity. It is a result which inevitably suggests the early flowering and fruitage of the failing plant, the windfall. The rather constant association with older persons, to state it positively, or the lack of companionship with children of their own ages, to state it negatively, is the most important factor in producing the peculiarity in question. They shared too largely in the affairs of adults and could not well avoid the development of an outlook beyond their years. The mental attitude, the language, the manners and conduct generally, were modeled after those of mature people and the result is obvious in any typical only-child.

#### CONCLUSIONS.

The health and vitality of these only children were below the average for the ordinary child. Mental and physical abnormalities were unusually common among them.

Neuropathic conditions were not uncommon in other members of the family, while the greater average length of

time elapsing between marriages and the birth of children points to the presence of a marked degree of relative sterility in the stock.

The average of the ages of parents at the birth of girls was considerably higher than that for parents of boys at the corresponding time. A greater percentage of the girls had only-child mothers and a higher percentage of the boys had only-child fathers.

They usually entered school later, were more irregular in attendance and met with less success in the work than other children. The percentage of those who attended the public school was less than that for all children in public schools.

They did not join in plays and games so readily or often as other children of the same ages, and as a rule preferred a quieter form of amusement. The practice of indulging in imaginary companionship was quite common. In their relations with other children it not infrequently happened that they preferred to associate with older or younger persons and often with the opposite sex. They were less efficient socially and experienced more friction in their intercourse.

Probably precocity was the most prominent mental, and selfishness the most striking moral, characteristic.

The youngest children, the only boys and the only girls described, resembled the only-child very closely in mental and social qualities. The number of reports on twins was too small to supply noteworthy suggestions.

As a rule the parents were both over-solicitious and too indulgent, an attitude which deprived the child of freedom when he needed it and granted it when it should have been refused, with the result that he found himself unable to secure from others the concessions he expected or to grant those required of him.

The data considered in this study does not justify any definite conclusions as to the extent to which the less favorable health of the only-child class is a consequence of the home treatment. At the same time it does not seem unreasonable to assume that there was a causal connection between the poorer health of these and the general character of the home life. It is easy to believe that a more rational attitude on the part of the parents would have resulted in an improved physical condition on the part of the child.

The connection between the home life and the mental, moral and social peculiarities of such children is obvious enough and many inferences of a pedagogical nature are suggested. The reports and common observation clearly

show that the home environment is the chief factor in producing the only-child type. The same evidence shows also that the mother is more responsible than the father in this The only-child, when a boy, is likely to be effeminate, both because he associates too little with boys and too much with the mother. He is likely to be a "mother's boy," a type for which the normal boy has little respect: is likely to have an unnatural aversion to dirt and noise and unlikely to engage in the rough-and-tumble play peculiar to boys. Whether boys or girls, they have less of the power of initiative and less ability to adapt themselves to the changing situations incident to the association of children under ordinary conditions. They are less venturesome and more fearful of the consequences of their own acts. They are, therefore, less able to take care of themselves in emergencies. They are over sensitive in their responses to the overtures of other children and too ready to regard them as manifestations of hostility. The deferential consideration to which they have been accustomed in the home creates an unwillingness on their part to make the adjustments which characterize the intercourse of other children. Possessing little of the give-and-take spirit peculiar to such intercourse, the only-child is likely to remain near the circumference of the circle within which the social development of the child should take place.

Too much association with older persons, especially the parents, is conducive to prematurity of development, one of the most obvious characteristics as well as one of the most unsatisfactory. The blighting effects of such stimulation are as glaring as they are unlovely and it is rather difficult to understand how the parents can so far delude themselves as to mistake such forwardness for extraordinary mental capacity. The results would be more or less pathetic if they were not so often suggestive of the ridiculous. priggish self-conceit and the smug behavior of the "mamma Kindschen" are a sure guarantee of a generous measure of teasing and badgering. If enough of it is permitted and endured the individual may eventually be transformed, though neither the child nor his mother is likely to welcome it. Children who have brothers and sisters cannot escape the occasions for such conflict and co-operation and find themselves prepared to meet the conditions involved in life outside of the family circle, largely because the home life compels the development of the power of adaptation. Most parents, especially most mothers, cannot easily endure the thought of having their offspring subjected to the rather unsympathetic treatment involved in being one of the group.

though they are fairly well able to do so when the group is composed of members of the family.

Certainly the only-child, the youngest child, the only boy, and the only girl, more than other children, stand in need of the opportunities which attendance at the public school will supply. The excessive humoring of their whims. the constant practice of intervening when harmless dangers are threatened and the meddlesome interference generally with their every movement, while it may afford the opportunity of expressing parental concern and affection, is bad pedagogy. The observers who reported the cases agreed unanimously in saving that there should have been less indulgence; that a more uniformly firm and natural method of control should have been employed; that the children should not have been so much with the parents and other elderly persons, but more with children of their own ages, to the end that they might have learned how to share with, and yield somewhat to, others; that the undue anxiety and concentrated affection of the parents should have been displaced by a more intelligent appreciation of the vital needs of the child.

Since this study was completed a rather extended pamphlet on the only child, "Das einzige Kind und seine Erziehung," by Dr. Eugen Neter of Mannheim, Germany, has been published. It describes and seeks to explain the peculiarities of the only child; and the great German specialist in children's diseases, Adolf Baginsky, says in the introduction that he has been led to look upon the situation of such children as a great hindrance, if not a serious danger, to their physical and mental development.









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