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Source: *Education and Training of the Mentally Retarded*, Vol. 19, No. 1 (FEBRUARY 1984), pp. 70-79

Published by: [Division on Autism and Developmental Disabilities](#)

Stable URL: <http://www.jstor.org/stable/23877220>

Accessed: 19-03-2015 20:00 UTC

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Feral and Isolated Children: Historical Review and Analysis

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Abstract: An historical review of the documented cases of feral and other environmentally deprived children is presented. Specific attention is given to the most commonly cited characteristics of such children with illustrations provided through the detailing of individual case studies. Discussion focuses on four groups of atypically reared children: animal-reared children, children isolated in the wilderness, children confined in isolation, and children confined with limited human contact. Analyses highlight rationales as to why specific individuals within these sub-groups responded positively in varying degrees to their incorporation into society. Philosophical and educational implications of research on such children is also discussed.

The subject of feral children has intrigued philosophers and scientists throughout the course of history. Perhaps this topic is of interest because it sheds light on many concerns central to developmental and educative processes. The topic requires an analysis of the nature of humanity and has provided data for the consideration of questions such as: what is a human being when he/she is not socialized? Are persons civilized as a result of certain evolutionary processes or is civilization a facade that when removed reveals the beast? Are people civilized because of the society in which they live or are they civilized in spite of society? Study of feral individuals provides a view removed from society in order to examine how much is beast and how much human. There are other philosophical issues involved as well. The study of feral children affords the opportunity to see how people learn and what things are learned through social contact. Such study is an opportunity to see how much one individual learns from others by studying that individual in isolation from society.

The purpose of this paper is to review the case information that has been developed on feral and other environmentally deprived children. In addition to providing some perspective on the above-noted issues, this literature also provides a foundation for appreciating the characteristics and needs of a truly exceptional population.

The term *feral* has often been used to designate both children reared by animals and those reared in isolation. Thus in its more inclusive usage, it may refer to four sub-groups of atypically reared children: (a) children reared by an-

imals, (b) children reared in isolation in the wilderness, (c) children reared isolated in confinement, and (d) children reared in confinement with limited human contact. Specific cases will be discussed under each heading to illustrate both similarities and dissimilarities between the groups. Nevertheless the term feral is most appropriate when used to refer only to the first and, to a lesser extent, the second group. The discussion below will focus on all four groups but initial attention is given to the classical characteristics that have been ascribed to feral children in the general sense.

Classical Characteristics

According to Freedman and Brown (1968), feral man was first defined by Carlos Linnaeus in 1758 in his work on animal and plant classification, *Systema Naturae*. Linnaeus used the term to differentiate between man living in society, *homo sapiens*, and man reared away from other men, *homo ferus*. He based this differentiation on nine specific cases including instances of animal and isolation rearing. Linnaeus listed three characteristics of feral man: "tetrapus"—four-footed; "mutus"—without language; and, "hirsutus"—hairy (Lane & Pillard, 1978; Zingg, 1940; Zingg, 1966). Each of these three key characteristics is briefly described below.

Locomotion

Quadruped locomotion has generally been present and reported in a vast majority of cases of feral children and occasionally accompanied by

extraordinary related jumping skills (Tylor, 1863). Gesell (1940), in writing about Kamala, the Wolf-child of Midnapore, noted that there were significant orthopedic/skeletal changes:

. . . her hands and feet were longer than average, apparently from the all-fours method of locomotion. The nails were worn on the inside to a concave shaft. The great toe was somewhat enlarged and projected obliquely and upward. Muscular arms reached from broadened shoulders, almost to the knees. The pelvis was slender, flattened, well-built, flexible, in straight line with an exceptionally straight spine . . . there were large callosities [callouses] at six contact points of her locomotor machine: palms, heels and knees. Her hip joints and knee joints were inflexible from contractures, which greatly limited motion (p. 57–58).

The return to biped movement for such children often proved to be a long and difficult procedure. Kamala's first progress was to a bipatellar stance, then to bi-patellar locomotion (Gesell, 1940), then to support against a wall in the standing position, and then finally to walking (Singh, 1966). For other children, the return to an upright position was accomplished by the use of leg splints as with the Hessian Wolf Boy or by leaning upright with support until the legs were strengthened as with the second Lithuanian Bear-boy (Zingg, 1966).

In all cases where the children were re-claimed and then taught to walk upright, none ever learned to run on two feet (Zingg, 1940; Zingg, 1966; Shockwell, 1898). A possible explanation for the inability of these children to learn to run on two feet is that bones are formed and muscles stretched and strengthened by the stresses placed on them (P. Warrick, personal communication, 1982). For feral children, back, hip and pelvic girdle have been structurally modified by and for quadruped locomotion during the early years of life—the period of fastest growth in the human child. In a quadruped position, the hip muscles are shorter and the buttocks muscles are lengthened. When shifting to a biped position, the buttocks muscles must shorten and the hip muscles (along the thighs) must lengthen. With muscles and joints in different positions (hip joint flexed in quadruped position and straight in an upright position), coordination is more likely to break down under the stress of

rapid movement. A higher level of coordination is required for running than for walking since in running the muscles have to contract more rapidly to sustain the running gait. In addition these children have to learn a whole new form of balance; they no longer are using forward shoulders and have two fewer limbs for balance.

Body Hair

Although Linneaus' second characteristic was hirsutus (hairy), few of the cases that have been described by him or others reported this phenomenon. Only three of the thirty-one cases cited by Zingg (1940) were reported to have fine hair covering their bodies when found. It can therefore be concluded that this trait is by no means a consistent one for feral children.

Lack of Speech

The third characteristic of feral man is *mutus* or absence of speech. Of 46 cases reviewed, 36 either had no speech or no intelligible speech when re-claimed. For seven cases, no specific information on speech at the time of capture is mentioned while three cases had inarticulate speech at that time. For 23 of the 36 mute cases it was either stated or implied that these children never learned to speak. It should be noted that these children remained mute even though their hearing was normal (Zingg, 1966). Zingg (1940, p. 504) stated that “. . . among animal-reared children there is but one case of recovery of human speech beyond the degree of recovery recorded of . . . Kamala, of the ability to say about 50 words” which is the case of the wolf-child of Sultanpur, who was captured from a wolf's den at age four and recovered sufficiently to become a police officer (Shockwell, 1898).

Various reasons have been postulated as to why feral children never learned to speak. One argument postulated by Bettelheim (1959) is that there is no such thing as a feral child and that they never made progress because they were autistic. A second hypothesis is that there is a critical period for learning language and if the child does not learn language in the first few years of life, he never will (Zingg, 1940; Gesell, 1940). The last argument is that these children never learned language simply because they were mentally retarded. Each of these three assumptions is questionable and specific facts as outlined below do not support the arguments.

There are only two cases of children reported to be feral but who were later identified as autistic:

1. John of Burundi, determined by Lane and Pillard (1978) to be autistic; no contact with animals could be proven; and,

2. The Wild Boy of Agra, researched by Ogburn (1959), where the report of capture from wolves was completely disproven.

Thus though there are confirmed reports of autistic children being mistakenly reported as feral, there are simply too many cases of feral children that have been authenticated for the phenomenon to be discounted (Lane, 1976; Zingg, 1966).

The second premise concerning the concept of a critical period for the acquisition of language has been questioned as the rationale for mutism since it “. . . lacks firm evidence and the ‘period’ lacks clear demarcation” (Lane, 1976, p. 112). The case of Kasper Hauer to be discussed later in the paper presents further evidence against this presumption since he managed to acquire language beyond the onset of adolescence and thus after the assumed critical period for acquisition (Simon, 1978). Nevertheless there is little question that the failure to acquire language during normal developmental periods can have serious repercussions for later spontaneous acquisition (Polloway & Smith, 1982).

Finally several arguments have been presented against a dismissal of these children as having been abandoned in the forests because they were retarded. These points include:

1. “Several of the cases are of children who have wandered into the wilds, alone, and have survived to adolescence by their own wits and strengths, unaided by human association . . .” (Zingg, 1940, p. 505).

2. Although the authenticity of some cases may be questioned, others have been authenticated by those who actually captured the children from their animal-parents (Zingg, 1966).

3. “The reports indicate that each of such feral children ‘invents’ and specializes in one or a few rudimentary means of subsistence, like swimming for fish and frogs . . . or climbing trees for birds’ eggs and young Natural idiots would never thus survive unaided” (Zingg, 1966, p. 135).

The following sections will highlight the four groups of atypically reared children as outlined earlier. Specific case histories will be discussed to illustrate each of these forms of childhood deprivation.

Animal-Reared Children

Of children reared by animals, the best-documented is that of Kamala and Amala, the Wolf-children of Midnapore. These girls were captured in 1920 by Rev. J. A. L. Singh and a party of hunters who had received reports of a human ghost. The cases have proven authenticity since the children were first seen in the company of a mother wolf and three cubs and were captured trying to escape from the den with their wolf mother and siblings (Singh, 1966).

Kamala was believed to be about 8 years old when captured while Amala was believed to be about 1¼ years old. When captured, they were both quadruped, seemed not to be bothered by hot or cold temperatures although their skin was sensitive to touch, and they were mute. Each ate like a dog, lowering her mouth down to the plate while in the quadruped position (Gesell, 1940; Singh, 1966).

The first major task upon capture was to get the girls accustomed to being around humans. At first they shunned humans and kept entirely to themselves. Singh (1966) reported that his wife decided to feed the girls every day herself and began each day for them with a lengthy massage to enhance feelings of personal security. The massage helped to begin human bonding, although it took nearly a year before they would seek out Mrs. Singh for food or comfort (Singh, 1966). Following Amala’s death one year after capture, Kamala withdrew from other children and even from Mrs. Singh. Because of fear that Kamala would lose the progress she had made, the duration of the daily massage was lengthened while Kamala was mourning. After two months Kamala sought out Mrs. Singh and even nodded her head in answer to a question (Singh, 1966). Thus began the re-claiming of Kamala’s humanity. “Wolf ways Kamala retained, but she was also weaned from them. And in the long weaning process nothing proved more influential than the systematic massage—a truly therapeutic laying on of hands” (Gesell, 1940, p. 29).

Kamala progressed from a frightened, caught animal who avoided human contact to a social being who understood speech, used 45 words, 2- and 3-word sentences and a large number of gestures to communicate, took an active part in the daily activities of the orphanage, was affectionate, and enjoyed the company of the other children and her special relationship with Mrs. Singh (Gesell, 1940; Miller, 1940; Singh, 1966). Her adaptation to human life is even more significant when her emotional losses and cultural shocks are taken into consideration. Her advances have to be viewed in terms of a continuum of change, learning, and unlearning, and not in absolute values of societal and cognitive skills at the time of her death at age 16. Kamala did not just attain a developmental age of three, she changed from a "wolf-child" to a "human child".

In addition to these children, numerous other verified cases have been reported. The reader is referred to Zingg (1966), Shockwell (1898) and *Wolf-children* (1882) for additional discussion.

Children Reared in Wilderness Isolation

These cases involve children who were reared by humans at least through infancy, were later lost to their families, and survived alone in the woods through their own resourcefulness. None of them has been proven to have an animal parent and, while all of them showed a fear of human contact, they did not show animal-patterned behaviors.

Wild Boy of Aveyron

In September 1799 in the Caune Woods of Southern France, a wild boy was spotted and captured by three hunters. He was taken to a nearby village and placed in the care of a widow (Itard, 1962), escaped after one week and returned to the freedom of his outdoor home where he stayed for six months, finally wandering into the house of a dyer in search of food and warmth (Zingg, 1966). He was finally transferred to Paris for study and was examined by the eminent doctor Pinel (Kanner, 1964) and diagnosed as being an idiot. Jean-Marc-Gaspard Itard, a young physician, would not accept the incurability of the boy's condition and set out to find a way to help him. This educational effort

has often been used by special educators to mark the beginning of the field and hence the moniker given to Itard as the "Father of Special Education".

Victor, as Itard named him, made excellent strides. He learned social skills, formed an emotional attachment for Madame Guerin, his housekeeper, and demonstrated an understanding of emotional loss based solely on her reaction to the table-setting placed by Victor for her husband shortly after his death (Itard, 1962).

Victor learned "justice" from Itard, and could anticipate need, such as getting a comb for Itard's mussed-up hair. He learned numbers, colors, and shapes, and could write simple French nouns and verbs. Although he used gestural communication Victor never learned functional oral expressive language while developing receptive language. Most of all, Victor learned how to survive in a new environment, where survival was based on meeting the demands that others felt were appropriate. Victor made truly significant progress in the five years that Itard worked with him.

Each of Itard's five goals for Victor was met except that of speech. He discounted the deep slash in Victor's throat and did not believe that it could be the cause of his silence (Itard, 1962). Lane (1976) suggested that the "fault" of Victor's continued silence was perhaps in the teacher and not the student. He noted that Itard's

. . . conditioning technique had enough flaws so that we cannot know if Victor might not have been able to recover speech, and go to greater development in language, thought, and social life In attempting to teach Victor to discriminate speech sounds, Itard began with too many vowels . . . , he made his selection based on the alphabet, rather than on available differences, and he failed to use his own principle of dwindling contrasts . . . (Lane, 1976, p. 169).

When Itard decided that Victor would never learn spoken language, he abandoned instruction altogether rather than trying to build on Victor's demonstrated skill with gestural speech. The next step to sign language and even written language could have admitted Victor to the greater world around him, rather than returning him to the world of isolation and mutism.

Victor did not achieve all that Itard had hoped

for him and thus he postulated isolation and "mental atrophy from disuse" (Kanner, 1964, p. 14) as a possible explanation for Victor's incomplete recovery. Lane (1976) elaborated by stating ". . . whatever the limitations of his education, it may be . . . prolonged isolation deprived him of the crucial skill by which children and adults profit from social experiences that are not explicitly designed for their instruction, namely the skill of imitation" (Lane, 1976, p. 182).

Other Cases of Isolation

The Girl of Cranenburg was found at the age of 18 living alone in the woods of the Netherlands in 1718. She had to be captured by villagers using ropes and nets. She had been kidnapped at the age of 16 months from her parents although no one, including the girl, knew at what age she was abandoned by her abductors. She was mute when found but quickly learned social skills. The last report mentioned that she was beginning to speak, had been reclaimed by her mother, and had been taken home (Zingg, 1966; Ogburn, 1959).

The Songi Girl of Champagne (Zingg, 1966; Ogburn, 1959) was believed to be nine or ten years old when she was found. She walked into a town wearing rags and animal skins and a gourd for a hat. She carried a large stick which she used to kill dogs that bothered her. She swam well, and caught and ate fish and frogs raw. After capture she cried out if strangers came near her. She eventually was taught social skills, learned to speak and write French, did embroidery, and became a nun. "The Girl of Songi is the only case of this sort [prolonged isolation] . . . who recovered speech . . ." to any significant extent (Zingg, 1940, p. 494).

Tarzancito was captured at five years of age in San Salvador. Immediately after capture, he cried out if anyone came near him. He had lived in the treetops, eaten fruit and fish, and was an excellent swimmer. He was mute when captured but it was noted early that he had good imitative abilities. He learned three words within the first three months. Seven years after his capture, Tarzancito was in third grade, making good progress and considered to be completely normal (Zingg, 1966).

Readjustment for these children was easier than for animal-reared children because there

was not a competing repertoire of previously imprinted social behavior. While the latter may be considered "antisocial" because they have learned competing animal behaviors, the children reared in wilderness isolation can be thought of as "asocial" because they had no opportunity to learn any system of social behaviors.

Children Reared Isolated in Confinement

This designation refers to children who are fed (at least enough to keep them alive) and housed, but kept locked in rooms or boxes without emotional nurture or human companionship. This group best fits Bettelheim's (1959) comment, "feral children seem to be produced not when wolves behave like mothers but when mothers behave like nonhumans." (p. 467). They represent cases of isolation that are far more extreme in terms of cultural deprivation than the orphanage studies of the 1930's and 1940's [see Robinson & Robinson (1965) for an excellent review of these studies].

Kasper Hauser

Kasper Hauser was left abandoned by an unknown caretaker at the gates of Nuremberg in 1828 (ironically the year of Victor's death) where he was found walking as if drunk. When a guard questioned him, Kasper held out a letter explaining that he had been left as an abandoned infant on a doorstep and that the writer had cared for him since that time. Also enclosed was a note supposedly written by Kasper's mother stating that his father had been a member of the Chevaux Legers and that at age 17 she wanted him to become a member like his father. The unsigned letter also indicated the boy's name and birth date (April 30, 1812) (Simon, 1978).

Kasper's only spoken phrases were "I want to be a soldier like my father," "I want to be a rider like my father," and "don't know" (Simon, 1978, p. 56). Because of his strange behavior and his inability to understand what was said to him, he was placed in the protective custody of the police. During this confinement Kasper repeatedly cried out, "ross" (horse). Finally one of the tower guards brought him some toy horses. He cried with delight and spent the next few days totally absorbed in playing with them, oblivious to his surroundings (Simon, 1978).

Kasper was moved after four or five days to the home of the prison superintendent, who had an eleven-year old son. The boy spent long hours with Kasper and “. . . it was he who, with great zeal, first taught Kasper to speak . . .” (Simon, 1978, p. 57). Kasper’s language improved dramatically and by the end of one month, he could give some bare details of his early life (von Feuerbach, 1966).

Kasper had always lived in a small wooden cellar and, until being brought to Nuremberg, had never been outside or even seen the sky. He had never been talked to, had been clothed only in a shirt and breeches, and his only food had been bread and water. Sometimes the water had tasted bitter (opiated) and when it did he would get very sleepy. When he awoke, he would have on clean clothes and his nails would have been cut. His only companions while he lived in this box had been two wooden horses and some ribbon.

Kasper never saw the face of his “caretaker”. It has been speculated that he was in this box from age three to age seventeen (Gesell, 1940; Freedman & Brown, 1968). Shortly before his release from this cage, his caretaker came into the box, kept Kasper’s back to him so as not to be seen, taught him to print numbers and letters and then left him alone to practice. Next, the caretaker came in and for several days had Kasper practice the three phrases that he recited when later found by the guard. Then after several days’ wagon journey, the caretaker put the letters in Kasper’s hands and pushed him toward the Nuremberg gate (von Feuerbach, 1966).

Kasper not only acquired language but also acquired skills in more than one language and thus he represents the only case of prolonged home isolation to ever recover to this extent (Zingg, 1940). His initial biographer, Anselm von Feuerbach (1966), stated:

Kasper’s mental condition, during his dungeon-life, must have been that of a human being immersed in his infancy, in a prolonged sleep, in which he was not conscious even of a dream, or at least of any succession of dreams. He continued in this stupor until, affrighted with pain and apprehensions, he suddenly awoke, stunned with the wild and confused noises and the unintelligible impressions of a variegated world, without knowing what had happened (p. 307).

A post-mortem after Kasper’s death found that he had an enlarged liver consistent with malnutrition and prolonged confinement. The cerebral cortex was also found to be underdeveloped, an additional residual effect of malnutrition (Simon, 1978).

Ireland (1877, cited by Scheerenberger, 1983, p. 60) summarized the handicap encountered by Kasper by stating: “. . . in the sad and mysterious case of Kasper Hauser we have an instance of superficial idiocy produced, not by loss of senses, but by deprivation of the power of exercising them”. Zingg (1940) expanded on the nature of his existence and provided an apt postscript on the life of this man. “Kasper Hauser appeared into this world as a *tabula rasa* rather than as animal-conditioned. In the five short years of (normalized) life accorded to Kasper Hauser, he lived a whole life, developing mentally from a child of three years into an adolescent boy of seventeen who played with hobby-horses, to a young man who spoke and wrote fluently and served (von) Feuerbach as a legal clerk for a short time” (p. 495). The ultimate bitter end was that Kasper was assassinated in 1838 by individuals who thought him to be the heir to the Duchy of Baden. If true, he would have ascended to the throne in lieu of William I, collaborator with Bismarck. This most unusual life and untimely death have subsequently been the basis for over 2,000 books, articles, plays, novels, and films (Scheerenberger, 1983).

Anna

The second case is that of Anna, born in 1933, the second of two illegitimate children of a rural Pennsylvania woman. The woman’s father did not want the child and the mother tried on two occasions to place Anna for adoption and two other occasions to place her in a foster home. Each time the child ended up at home. Because of the grandfather’s displeasure with the child, Anna was kept locked in the attic out of his way and sight. Her mother was required to do farm work and seldom spent any time with the child. When discovered at age six, Anna could neither walk nor talk. She was also suffering from malnutrition, her only food having been cow’s milk. During her first year and a half in foster care, she learned to walk and to feed herself, but she still did not speak. She was then moved to a home for retarded children. At the end of 1½

years in the institution, a psychologist felt that she was at a babbling stage and that speech might develop. The last report, completed two months before her death at the age of 10½, indicated a slow and steady improvement: Anna now spoke in phrases and short sentences although her overall functioning was still within the retarded range (Davis, 1946; Zingg, 1966).

Albert

The third case is that of Albert, the youngest of three children. From the time of his birth, he was kept alone in a room and his mother entered the room only to occasionally feed and diaper him. He was discovered at the age of 4 by a relative. His only food was a gruel fed to him from a bottle. He was removed from the home and placed in the hospital for eight weeks. He could not talk, waddled rather than walked, could not chew and was not toilet-trained (Freedman & Brown, 1968). During the hospital stay he learned to hold a cup and toys and his walking improved. He was never observed playing with toys nor did he respond emotionally to hospital staff. Because of legal problems, the child, upon release from the hospital, had to be returned to his parents. He remained there another nine months and was finally removed again. According to reports from his foster mother, he lost most of the skills he learned while in the hospital (Freedman & Brown, 1968). These authors noted

. . . a striking observation, the celebrity of which is much enhanced by similar observations by Itard and Zingg, which was a total lack of pain sensibility when he was first observed. The foster mother offered the information that during the first several months he would fall and cut or bruise himself, get up, and continue what he was doing. Only after some evidence of affectional attachment to her had developed did he also show evidence, in the form of tears and the seeking of comfort from her, that he had been hurt (p. 274).

At final follow-up, after two years out of the natural home, Freedman and Brown (1968) reported that he continued to show improvement, “. . . but at a pace which leaves him in the retarded range He is markedly hyperkinetic and tends to engage in relatively violent

activity which often results in the destruction of the object he is using” (p. 274–275). He had developed speech and could handle objects but he remained relatively unresponsive to his environment and to adults.

Children Confined With Limited Human Contact

Anne

The first case is that of Anne, Albert's older sibling. Her mother decided during her pregnancy that her child would be defective, so when Anne was born she kept her confined to the bedroom of her older brother. This oldest sibling seems to have lived a semi-normal life, was allowed to come and go as he wished and even attended school. But though Anne shared his room, she did not share his freedom. She was not allowed to leave the bedroom and although her brother had a bed, she slept on a straw pallet on the floor. Her only food was a gruel from a bottle. She was discovered by a relative at the age of six. When she (and Albert) were removed to the hospital, she was unable to feed herself, her speech was echolalic, and she was incontinent. She showed no emotional response to her removal from the home. During her eight weeks in the hospital, she became continent, could feed herself, learned to say the names of some objects and formed emotional ties to the nursing staff (Freedman & Brown, 1968).

Because of legal problems, she was returned to the home of her parents upon release where she stayed for nine months. She was then removed from the parental home a second time and placed in foster care. Like Albert, she also lost skills at home that had been acquired during the hospital stay. Upon foster placement, Anne could no longer feed herself. Her developmental age on the Vineland Social Maturity Scale was at the ten month level. However eighteen months later (at the age of eight) her development had increased to the four-year old level (Freedman & Brown, 1968).

After two years out of the parental home, Anne's lexicon included a large number of words although articulation was poor. “Her responses to verbal stimuli seem best described as reflective in character” rather than interactive. “She is indiscriminately affectionate to adults and will

gladly go with any stranger" (Freedman & Brown, 1968, p. 272-273).

Isabelle

The second case is that of Isabelle, discovered in 1938, who was kept with her deaf-mute mother locked in a room of the family home. What little food they had was pushed to them under the locked door (Zingg, 1966). The mother could not speak and so her daughter did not learn to speak although they did use a form of gestural communication (Davis, 1964). Lack of sunshine and inadequate diet caused Isabelle to develop rickets and, as a result, her legs were terribly bowed (Davis, 1964). When Isabelle was 6½ years old, her mother managed their escape and Isabelle came to the attention of the authorities (Simon, 1978). She was evaluated at the 2½ year level on the Vineland Social Maturity Scale and was considered by many to be ineducable. In spite of this prognosis, Isabelle was put into an intense remedial program. It was noted that as time went on ". . . she went through the usual stages of learning characteristic of the years from one to six, not only in proper succession but far more rapidly She covered in two years the stages of learning that ordinarily require six. Or, to put it another way, her IQ trebled in a year and a half" (Davis, 1964, p. 436). At age fourteen she was considered to be an intellectually normal adolescent.

Other than Kasper and Isabelle, the children confined in isolation may be termed nonsocial because their attempts to establish natural social relationships were thwarted by the malevolent unresponsiveness of their caretakers.

Discussion

The problems of these four groups of children may appear to be similar: they had to learn speech, social skills, and how to cope in an environment radically different from the one they had known. They had to change what food they ate, how they got it, and in particular, how they ate it. Some children had to learn to walk while others had to learn to walk on just two feet. But animal-reared children had an additional task to accomplish: before they could learn they first had to go through a process of "unlearning" since they had become accustomed to animal

habits (e.g., food choices, locomotion, social habits, and sleeping patterns).

If they were to grow in humanity, they would have to fight with the fixed animal character formed during those years with the wolves in their cave and in the jungle, i.e., the whole animal environment A new life, which is the sum total of the development of the human senses, was opened to them. At first it stopped all growth in them for some time, because they had to fight with the acquired animal instincts . . . (Singh, 1966, p. 44).

For the "wild children" such as Victor, the problems of adaptation were less severe because they had less to forget and ". . . thus they did not have to spend the plastic years of childhood youth or early maturity shifting from animal conditioning to that of human beings" (Zingg, 1966, p. 272). The children who had been "survivors" had to learn to depend on others for food and security and for an explanation of how the new environment worked and what their role in it would be. Previously they had survived by their own wits; now they had to learn to survive by learning appropriate dependency and responsibility. They were no longer alone in the world.

For Kasper, the developmental process was not un-learning, nor like the children who were self-reared, did he have to adjust to a different environment through dependency on others; rather, learning required that he completely modify cognitive processes. Kasper came into a three-dimensional world with single-dimension comprehension. A view of spring from an open window was to him not a landscape but a mass scattering of shapes and colors without meaning or purpose (von Feuerbach, 1966). Representations of real objects, such as statues and paintings, he believed to be alive: ". . . it appeared strange to him, that horses, unicorns, ostriches, etc., which were hewn or painted upon the walls of the houses in the city, remained always stationary, and did not run away" (von Feuerbach, 1966, p. 330). To overcome his inability to distinguish dimensions (one dimension from three dimensions), he learned by repetitive handling of both pictures of the object and the object itself until he could *feel* the difference. Kasper himself reported that it was not until he took walks outside and experienced the shapes, sizes,

colors or houses, hills, trees and flowers that he could distinguish one thing from another and understand size relationships (von Feuerbach, 1966). His task was to assimilate and categorize all the phenomena that his senses were experiencing. It is significant that he felt that he gained understanding primarily by experiencing the object himself.

Anna and Albert spent less time in isolation than Kasper but did not recover to the extent that he did. Anna spent four years in recovery and her development progressed from the ten-month level at the time of discovery to the three-year level at the time of her death. Albert's progress showed nearly the same pattern. At age four when found, his developmental level was less than one year of age. After two years out of the parental home, he functioned at approximately the two-to-three year level (Freedman & Brown, 1968).

For the children who were confined with limited human companionship, the recovery rate is better. Anne, when first removed from the parental home, had splinter skills: she could walk, but not feed herself. She was also developmentally below the one-year level. By the end of two years out of the home, at about age nine, her skills were still splintered and ranged from two to six years. There was a marked degree of emotional disturbance and she could still not differentiate between herself and her environment (Freedman & Brown, 1968). Isabelle's development, using the Vineland Social Maturity Scale, was at the 2½-year level when she was 6½ years old. Two years later her functioning level was reported to be completely normal (Davis, 1964).

Of the five children discussed who were raised in confined environments, Kasper and Isabelle achieved the highest degree of recovery. Kasper's world had been predictable. Someone had always taken care of his survival needs and ". . . thus, one day had passed as the other, but he had never felt the want of anything" (von Feuerbach, 1966, p. 305). Even a year after discovery he continued to show affectional ties for his former jailer. Isabelle also had a warm, affectionate relationship with her caretaker. Though her mother could not speak, she did care for her child and they, confined together for 6½ years, communicated gesturally. Upon Isabelle's entry into the hospital and her separation from her mother, she wept for two days

(Freedman & Brown, 1968). Isabelle's material world may have been impoverished, but her emotional world was not.

Anne, Albert, and Anna all showed poor recovery. They basically shared the same type of cold, hostile, unresponsive environment even though Anne had the nightly company of an older brother. For example, while Kasper had his nails clipped and his clothes changed, Anna was left lying in her own waste. Anne, Albert, and Anna lived in an environment that was inconsistent and unpredictable. Someone came and gave them food, but even this human contact was abusive and on an irregular basis. Each day was another day of unmet needs. The energy they could have used for learning was spent on the task of anticipation.

For children reared in isolation with limited human contact, the degree and quality of contact becomes a complicating factor of recovery. Contact with other humans conditions a person to expect a certain type of treatment. Kasper's and Isabelle's needs, at least from their perspective, had been met. But if the human contact is minimal and the child can see the caretaker but is not allowed to interact with her, and, if the care that is given is inconsistent and leaves the child still deprived, then the child may become conditioned not to trust other people and not to reach out to others. So Albert, Anne, and Anna turned inward, becoming self-isolated. This self-imposed isolation from an unresponsive world is logically what could have interfered with their recovery.

For the isolated child who grew up in a world of hostility, the situation is different. Kamala grew up in a non-human environment but not a malevolent one. Anne, Anna, and Albert grew up in a world of cruelty and unattended needs. Even though they made some intellectual gains after removal, the emotional harm done to them persisted throughout and interfered with the recovery process. Kamala and Victor had survived outside because they had been conditioned to be aware of the environment and to respond to it. Anne, Anna, and Albert had been conditioned not to respond or even attend to their environment. Recovery was impaired because these three children were emotionally bereft. The feral or the wild child is temporarily lost from society; the emotionally isolated child remains permanently lost to himself.

What insights can be gleaned from the study

of deprived children as to the nature of human development? Is nature the sole determiner of what a person is, or is nurture, the environment, the ultimate definer of personhood? In the matter of feral children, the two forces are inseparably intertwined. Whether reared by animal mothers or surviving alone in the outdoors, they are in need of human socialization. They belong to no human group through which their humanity may be defined. They are neither Rousseau's "noble savages" nor Pinel's "idiots". They are not aware or inexperienced, it is simply that their awareness, knowledge, and experiences are not those of the rest of the species. At the time of re-claiming, all that may be termed "human potential" is waiting for the environmental forces to foster its growth.

Summary

Over the past 500 years numerous cases of individuals who were raised in the wild or in non-normative domestic situations have been reported. Characteristics thought to be common to true feral children include quadruped locomotion, hairiness, and mutism. However research has not provided a clear basis for acceptance and understanding of these characteristics and many of the children described as feral were never proven to be raised by animals. In addition to animal-reared children, three other groups of atypically reared children were discussed: (a) those raised in isolation away from society; (b) those confined in isolation; and (c) those confined with limited human contact. Specific case examples further illustrated the nature of these designations. The study of such children affords a unique basis for philosophizing on the nature of man as well as on the malleability of human characteristics.

References

- Bettelheim, B. (1959). Feral children and autistic children. *American Journal of Sociology*, 44, 455-467.
- Davis, K. (1964). Final note on a case of extreme isolation. *American Journal of Sociology*, 52, 432-437.
- Freedman, D. A., & Brown, S. L. (1968). On the role of coenesthetic stimulation in the development of psychic structure. *Psychoanalytic Quarterly*, 37, 418-438.
- Gesell, A. (1940). *Wolf child and human child: The life history of Kamala, the wolf girl*. New York: Harper.
- Itard, J. M. G. (1962). [*The wild boy of Aveyron*] (G. Humphrey & M. Humphrey, trans.). Englewood Cliffs, N.J.: Prentice-Hall (Originally published, 1894.).
- Kanner, L. (1964). *A history of the care and study of the mentally retarded*. Springfield, IL: Charles C. Thomas.
- Lane, H. (1976). *The wild boy of Aveyron*. Cambridge, MA: Harvard University Press.
- Lane, H., & Pillard, R. (1978). *The wild boy of Burundi*. New York: Random House.
- Miller, L. M. (1940). Wolf-girl and the baboon-boy. *Science Newsletter*, 38, 26-29.
- Ogburn, W. F. (1959). The wolf boy of Agra. *American Journal of Sociology*, 64, 449-454.
- Polloway, E. A., & Smith, J. E. (1982). *Teaching language skills to exceptional learners*. Denver: Love Publishing.
- Robinson, H. B., & Robinson, N. M. (1965). *The mentally retarded child: A psychological approach*. New York: McGraw Hill.
- Scheerenberger, R. C. (1983). *A history of mental retardation*. Baltimore: Paul H. Brookes.
- Shockwell, G. A. (1898). Wolf-children. *Lippincott's Monthly Magazine*, 61, 117-124.
- Simon, N. (1978). Kasper Hauser. *Journal of Autism and Childhood Schizophrenia*, 8, 209-217.
- Singh, J. A. L. (1966). *The diary of the wolf children of Midnapore (India)*. New York: Archon Books (Originally published, 1942.).
- Tylor, E. B. (1863). Wild men and beast-children. *Anthropological Review*, 1, 21-32.
- von Feuerbach, A. (1966). *Kasper Hauser* (Originally published, 1833). In R. M. Zingg (Ed.), *Feral man and cases of extreme isolation of individuals*. New York: Archon Books (Originally published, 1942.).
- Wolf-children. (1882, September 16). *Chamber's Journal*, pp. 597-599.
- Zingg, R. M. (Ed.) (1966). *Feral man and cases of extreme isolation of individuals*. New York: Archon Books (Originally published, 1942.).
- Zingg, R. M. (1940). Feral man and extreme cases of isolation. *American Journal of Psychology*, 53, 487-517.

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