THE ORIGIN AND CONTROL OF MENTAL DEFECTIVENESS

By Dr. Chas. B. Davenport
Station for Experimental Evolution, Carnegie Institution of Washington.

Not long ago I spoke to a company of physicians and lawyers on inheritance of certain types of imbecility, and exhibited some charts that showed that imbecility in a child is due to defects in the germ-plasm of both his parents. At the end of my remarks the chairman pointed out that the facts presented merely deferred the origin of feeble-mindedness a generation or two and did not touch on its true cause. I find this idea wide-spread; the point raised consequently deserves further consideration: How did feeble-mindedness originate in the first instance?

Before we can answer the question as to the "cause" of feeble-mindedness it is desirable to get a clear definition of the term. As a matter of fact, very diverse definitions have been offered. An old legal formula is as follows: "He that shall be said to be a sot and idiot from his birth is such a person who can not count or number twenty pence, not tell who was his father or mother, nor how old he is, so it may appear that he hath no understanding or reason what shall be for his profit or what for his loss; but, if he have sufficient understanding to know and understand his letters, and to read by teaching or information, then it seems he is not an idiot." While this definition lacks in completeness and scope, it has a more philosophical basis than many that are more recent. Of late the Binet-Simon tests of mental grade have aroused new enthusiasm and have been thought to give an exact, quantitative measurement and definition of the different classes of mental backwardness. The method is simply that of establishing a series of mental standards (questions, exercises, mental feats and so on) for each year of school life, grading a given subject by these standards and finding the difference between the actual age of the subject and the standard age of the highest test passed by him. This method of defining feeble-mindedness seems to assume that there is a greater mental resemblance between two persons deficient three years than there is between one who is deficient three years and one who is deficient four years. And that, it seems to me, is fundamentally erroneous. For the modern biologist is coming to rely less on the idea of races or groups and to realize that, in nature, we have only individuals, made up of collections of traits that are, for the most part, separately inheritable. Not individuals, but their transmittable characters, are
the units of heredity. From this point of view we may say that feeble-minded persons are such as lack one or more mental traits that are socially important.

From this definition it follows that mental defectives differ quantitatively in the number of socially important traits that they lack and qualitatively in the kind of traits and the degree of their social importance. Defectiveness in one important trait only may be called uni-defectiveness; in two traits, di-defectiveness and so we may have tri-defectiveness up to multi-defectiveness. For example, cases are well known of number-defectiveness, attention-defectiveness, memory-defectiveness, imagination-defectiveness, emotion-defectiveness, inhibition-defectiveness, moral-defectiveness, occurring quite without other defects. Well-known unit defects are word-blindness, figure-blindness, word-deafness, tone-deafness and color-blindness. Any of the defects may occur isolated or two or more of them together in one individual. Such defectives are often not recognized as such, if the missing trait or traits have little social importance; but if gentleness gives way to cruelty or self-restraint to self-indulgence the uni-defective becomes a "moral imbecile," and such a moral imbecile may be good at his school work and bright and active in most ways. It is, however, the multi-defectives that constitute the main problem of the feeble-minded; for they are fairly common and are a constant drag on that school system which is not adapted to their capacities. Yet among such may be good mathematicians, musicians, mechanicians, etc. It is clear, then, that "feeble-mindedness" is not a simple trait, but a convenient group in which to put all of the socially inadequate.

Can we, in the midst of this heterogeneity find any general "cause" of defectiveness in its varied manifestations? It seems to me we can discover such a cause by attending to various features of defectiveness. First of all we have to recognize that these defects are in general hereditary. There are family strains with color-blindness, stuttering, word-blindness, number-blindness, tone-deafness, and so on. The deficiency of the uni-defective comes from a defect in the germ-plasm of one or both of his parents. In a multi-defective, likewise, all the absent traits are the result of corresponding defects in the germ-plasm of the parents. And if both parents be multi-defectives that combination of germ-cells will be rare indeed that results in anything but a feeble-minded child.

And, secondly, it is to be observed that "defects" are not pathological conditions; they are merely deviations from the normal condition of the adult. For every person shows these defects at some stage of his life and only gradually overcomes them. My nine-months-old son can not talk, nor dress himself, nor attend to his animal needs. He is
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word-blind and figure-blind. He is cruel to the cat, appropriates to his own use the property of others, and insists vehemently upon having what he wants at whatever inconvenience to another. He is now a low-grade imbecile without moral ideas. He will prove himself not to be "feeble-minded" if, as he approaches puberty, all of these and the other socially important undeveloped conditions prove, under fair culture, capable of development up to the corresponding "normal" conditions. Defectiveness is thus a persistent infantile condition of one or more characteristics; a failure of certain socially important traits to develop.

Now there is a well-known biological principle that "ontogeny recapitulates phylogeny"—that the child in his development passes through the same series of physical and mental stages that the adults did in the successive generations of the race's development. So we may infer that man's remote ancestors did not go in their adult stage beyond the point where this infant-man is now. Indeed, the adult apes, nearest allies of our ancestors, show the same inability to talk, to dress, to regard property rights and to be gentle and considerate toward others that the infant shows. And we can not escape the conclusion that the gradual acquisition of social traits by the normal child follows much the same road as the evolution of social man from non-gregarious apes. But, there are men who never develop these social traits. And if we study the pedigrees of such men carefully (and many of them have been studied for six or seven generations) we trace back a continuous trail of the defects until the conclusion is forced upon us that the defects of this germ plasm have surely come all the way down from man's ape-like ancestors, through 200 generations or more. This germ plasm that we are tracing remains relatively simple; it has never gained (or only temporarily, at most) the one or the many characteristics whose absence we call, quite inadequately, defects. Feeble-mindedness is, thus, an uninterrupted transmission from our animal ancestry. It is not reversion; it is direct inheritance.

To summarize: Man is evolving and in that evolution he has lost some physical traits and gained some mental ones. But neither in their losses nor in their gains have all strains evolved to the same extent. Some races have lost the skin pigment, but others have made little progress in this direction. We are getting rid of our body coat of hair, but the Akkas of the Upper Nile and special smaller strains have a very hairy body, and so appendix and tail (coccyx) show variations that run in families. Likewise in the acquisition of mental traits, whole races differ in their ability to speak, to count, to foresee. The Ethiopian has no more need for thrift than the tropical monkey and has not acquired it. It is not surprising that there are strains, even
such as have a white, hairless skin, that have never acquired an appreci­ation of cause and effect, of the importance of controlling the sex­passion, of the necessity of regarding the rights and feelings of others. The marvel is not that these strains still persist, but rather that they have been so nearly exterminated.

This brings us to the subject of the control of mental defectiveness. We see at once that there must have been at work, even in prehistoric times, a sort of natural control by the elimination of those incapable of meeting the ever-increasing complexities of “advancing civilization.” As man spread to the north those strains that had not acquired the trait of hoarding for the winter mostly perished of cold and hunger; those strains that had not acquired the sense of property rights and tended to invade the stores of others were always in danger of being cut off. In England, less than a century ago, there were 223 classes of offences punishable by death. Under such rigid selection “defe­fective” ancestral strains tended to be eliminated.

To-day, in our most highly civilized countries, the process of elim­ination of the unfit animal strains is largely reversed. We protect, in an institution, the members of a weak strain up to the period of repro­duction and then let them free upon the community and encourage them to leave a large progeny of “feeble-minded”; which, in turn, protected from infantile mortality and carefully nurtured up to the reproductive period, are again set free to reproduce, and so the stupid work goes on of preserving and increasing our socially unfit strains.

But a reaction is setting in. The legislatures of six of the United States have already voted to permit the sterilization of defective persons. But it is doubtful if the “more advanced” public is altogether ready for such operations. A less drastic, but not less effective, method is the segregation of the defective strains during the entire reproductive period. However, the method is not so important, but in some way or other society must end these animalistic blood-lines or they will end society.