Some Notes on Causation of Mental Defect.

Martin W. Barr, M. D.,

(Read at The Thirty-Fourth Annual Convention of The Association of Directors of the Poor and Charities of Pennsylvania, West Chester, October 13th, 1903.

In the study of the mentally defective and backward classes now attracting such universal attention, no subject is as frequently and eagerly discussed as that of cause and effect. My own experience, as that of all engaged in the work, is to meet the oft repeated question, "What is the cause of my child's condition?" The answer naturally involves a consideration of various factors of causation, which nature in her constant efforts to revert to original and healthy types, must meet either simply or in combination, and too often vainly combat.

Heredity recognized in all ages, among all peoples as an acting dominating power in the progression or retrogression of races is described and repudiated by some, from a simple misunderstanding or misconception. Thus a disease, or defect, or a weakness need not necessarily be reproduced in its exact form of, for example, tuberculosis, drunkenness, or epilepsy; but during the daily intercourse and cohabitation of individuals thus affected, there maybe, and often is, a coalition and interfusion producing an evil far worse than any of these, it may be idiocy, imbecility, or insanity. Or else there may be a blending of nerve tissue and fibre of such vicious quality as to produce a "poor make up", so to speak, in the offspring who, with no resisting power, succumbs easily to sudden attack or to the influences of unhealthful environment, too often transmitting its burden of accumulated ill. For, unfortunately, even among so called respectable people the procreation of the human species does not receive a tithe of the attention given to that of horses, of flocks or of herds.

While the toleration of underbreeding on any stock-farm would meet with sharp criticism, the affiliation of normal humanity with defective goes on in all lands without protest, and, save only in a few states unrestrained by legal injunction.

During more than a century of the work of sequestration and care, the attention of those engaged in the task of amelioration and prevention has notably been directed towards the subject of causation. Accumulated data drawn from family histories, carefully investigated has in that time afforded foundation for authoritative opinion, and upon such basis, various studies have been made from time to time by aliens of repute—Seguin, Howe, Dahl, Grabham, Down, Ireland, Beach & Shuttleworth and others. With the aim of reducing
yet more closely to concrete form, carefully graduated tables of causation have been worked out on the Continent, in England and America, convenience dictating a division into three periods, or causes acting before, at the time of and after birth. All agree in finding heredity the most fruitful cause.

In my own personal investigation of 4,050 cases I find by far the greatest number of cases presented 2,651 or 65.45 per-cent traceable to causes acting before birth; those at the time of birth show only 186 or 4.59 per-cent; while those after birth amount to 1,213 or 29.96 per-cent.

In the first period I find the largest number 1,030 or 25.43 per-cent due to an inheritance of idiocy and imbecility direct. Nothing is so readily transmitted as defect and unless strongly counterbalanced by an infusion of pure blood, its lack of resisting power and early affiliation with other neuroses continually intensify it. Often in spite of prepotency the trait lingers, and in the fourth or fifth generation, there will be a physiological house-cleaning and a degenerate is bound to appear.

In the majority of instances however, the heredity is direct as in a case coming under my observation, both parents being wholly defective—the father only 38 years of age—there are no less than 19 defective children; another shows 8 microcephalic idiots and yet another from similar stock numbers 34 imbeciles in three generations. In another family, the mother an idiot, has given birth to 7 idiot children.

The abnormal condition of mothers during gestation is responsible for 352 or 8.69 per-cent. Among my cases, poverty, hardwork, worry, etc., all combine to produce idiocy, as does also any sudden or violent shock, mental or physical. For instance the wife of an official in the government service, present at the Siege of Tangier, where cannonading went on for three days continually, gave birth to an imbecile child.

The ill effect of a tubercular connection is not to be underestimated. I find it a factor both near and remote through several generations, and responsible for 308 or 7.60 per-cent. Drs. Shuttleworth and Beach find about the same—7.57 per-cent.

Insanity as a permeating penetrating disease is responsible for 280 or 6.91 per-cent of my cases. In a study of 7 generations, numbering 173 individuals, sprung from one insane man, I find 25 neurotics, 9 violently insane, 3 imbeciles, and 10 still-born children: in all 47 abnormal cases.

Intemperance, while really much exaggerated as a single factor, is nevertheless recognized as a contributing agent. I find it in 233 cases or 5.75 per-cent, generally in combination with some of the various neuroses. In England, Shuttleworth and Beach find it in 390 cases or 16.38 per-cent. In Norway, according to Ludvig Dahl, it is a pronounced cause. Ruez observed idiocy common among the miners of Westphalia, who living apart from their wives, return home only on holidays and then generally drunk.

Delasiame says that at Cereme, whose wealth is in its vineyards, the inhabitants in consequence of a ten years vine disease, were forced to remain sober, and of children born during this period, mental defect was appreciably lessened.

On the other hand in Scotland and on the coast of Normandy, where whole villages, prior to the setting out of the men for the fishing-grounds, get drunk at once, one would expect in nine months a crop of idiot children, but such is not the case.

While it cannot be denied that the toxic action of alcoholism in the father may be a direct cause of idiocy; one must also consider the associated cause; viz, the consequent condition of the mother. In a certain museum, are the casts of 7 microcephalic idiot heads; the father, keeper of a public house, a man of some intelligence, was nevertheless a dipso-
The father deprived of drink, a child, perfect in every way was born.

Confirmed drunkard, was the father of 16 children; 15 died of convulsions in infancy; 1 only, an epileptic, lived. The mother dying, the father married again. Of this marriage there were 8 children, 7 of whom died of convulsions, and one was phthisical.

The minor neuroses in 130 cases or 3.21 per-cent show chorea, hysteria, sick headache, neuralgia, hyperchondrosis, which finding expression in violent tempers, ill-timed grief, or untimely mirth prove a fruitful cause not only of mental, but of moral defect.

Weakened power of resistance leads to a lowering of moral tone indicated by indulgence in petty vices, irresponsibility and consequent inability to attain success in life. For example, a psychotic woman—nervous, flighty and passionate, is reproduced in 10 of 18 descendants—6 imbeciles and 4 early deaths; the modified condition of the others, points to some prepotency in a commingling of pure blood.

Epilepsy, directly transmitted, gives 119 cases or 2.49 per-cent, and similarly cancer—64 or 1.58 per-cent.

In close connection with the subject of heredity, comes consanguinity, and probably no branch of it has given rise to more widely divergent views.

The consensus that accepts heredity as a primary factor or agent in the production of idiocy, fails to recognize consanguinity as a distinct and separate cause.

My investigations have been made with the greatest care and accuracy, all information involving any possible doubt, having been excluded, I find only 49 cases, or 1.21 per-cent. Where the blood is pure and uncontaminated, there is no evil resulting from inter-marriage, if however the blood has ever so slight a taint, idiocy may, (although not always) be the result. In my cases, two were the fruit of incestuous connection—one of brother and sister—the other father and daughter. Dr. Howe found 44 idiots in 17 consanguinous families, but the parents were also either scrofulous or intemperate.

In the commune of Batz—an isolated ocean washed peninsula of the Loire Inferieure, France—with an average population of 3,000 leading simple wholesome lives, among whom crime and intemperance are unknown, inter-marriage has been common for hundreds of years and imbecility or indeed any form of defect is unknown; yet the number of children born is above the average.

In the causes acting before birth, are found in graduated proportion the heredities of scrofula, disease of the cardiovascular system, syphilis, goitre, and attempted abortion.

In my second division, causes acting at birth—186 or 4.59 per-cent—the various influences retarding or hastening birth are of minor importance in comparison with the harmful results of instrumental delivery which I find in 74 instances or 1.83 per-cent. Difficult labor, tedious and prolonged, is found in 43 cases or 1.06 per-cent; premature birth in 39—.96 per-cent—and the various accidents at birth in 30 or .74 per-cent.

Causes acting after birth, 1,213 or 29.96 per-cent, are summed up under the head of accidents and the various diseases.

Of these I find epilepsy in excess, 273 cases, giving 6.74 per-cent. Indeed I have come to regard epilepsy as but another phase of certain and continuous degeneration; and that the majority of cases of convulsions occurring in infancy or early childhood and referred to by physicians as eclampsia, are in reality epilepsy; held in abeyance it may be for years, but sooner or later—usually about the period of puberty—the spasms will return with renewed force and frequency.
Injury to head from falls or blows I find in 229 cases or 5.65 per-cent. A child may be born normal and the carelessness of a nurse defeat all that nature had planned.

Acute diseases, pleurisy, pneumonia, malarial and ephemeral fevers, 145—3.58 per-cent. have been esteemed causes.

These being the only ones assigned, insufficient data of other character required their acceptance, but I feel well assured that in the majority of cases, some latent neurosis, or neurotic tendency and lack of resisting power was the true cause, and the disease only an exciting agent; the defect present, but latent and unsuspected until the acute attack precipitated its development. The same might be said of other causes which appear in ever lessening gradation of less than 1 per-cent: Abuse, neglect, exposure, gastro-intestinal diseases, masturbation, insolation, and diphtheria. Meningitis and scarlatina present a nearly equal ratio—the one in 110 cases, giving 2.72 per-cent; the other in 99 cases, giving 2.45 per-cent.

Not to detain you too long, I have given as succinctly as possible these data relating to the causation of idiocy and imbecility—data based upon continued comparison and persistent research through many years.

A consensus among students in many lands confirms conclusively the opinion reached; viz, that any malnutritive condition tending to prevent arrest, or retard development in the human species, must result in idiocy or imbecility. As provocative of such condition the hereditary causes acting singly or in combination are most potent. Heredity is here proven law! Heredity—whether direct or indirect—as inexorable as death itself.

Science has done its part in showing Cause, and the Light leads us to a parting of ways. To quote the very pertinent title of a recent English publication—"Race Culture; or, Race Suicide?" which shall be the trend of good citizenship in the coming future?

In Europe—Austria, Servia and Italy lead in forbidding the marriage of degenerates. England does not forbid marriage, but makes sexual intercourse with a married degenerate, a penal offence.

In the Americas—the Argentine Republic and the States of Michigan, Minnesota, Indiana, and North Dakota, have legislative enactments against the marriage of degenerates and those afflicted with hereditary diseases.

Connecticut goes farther in forbidding intercourses tending to the procreation of epilepsy and imbecility.

Delaware forbids the intermarriage of paupers, but the act makes no mention of degenerates.

Pennsylvania has twice vainly voiced the will of her people in legislative action legalizing the asexualization of those adjudged imbecile by proper authority. Meanwhile the necessity for three large and many small institutions, shows an ever increasing burden of degenerate folk within her borders.

That the true end of segregation and separation in asylums is largely frustrated by the sending out of the imbecile unrecognizable or unfit for self-control or self-protection, there can be no question.

Equally true is it that the only solution of the problem of such dissemination is to be found in asexualization. Once adopted as a preventive of Race Suicide, and a means toward Race Culture, the public mind will readily adapt itself to it, as merely a new system of quarantine carrying us forward to yet higher ideals in the procreation of humanity.

Naturally after clearing a defective strain, the next step must be the cultivation of higher qualities in the individual with the one aim of ennobling posterity and elevating the race.