

## INFLUENCE OF INEBRIETY IN HEREDITY OF MENTAL DEFECT.

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The subject assigned me deserves more careful study of cases and more careful consideration of authorities than I have found time and opportunity to devote to them and does not contemplate a presentation of the endless controversy concerning heredity and environment.

The idea is prevalent that inebriety is the most potent of all factors in the production of degeneracy and this impression is justified, in a measure, by the researches of students of scientific sociology. However, there is a great difficulty in securing sufficient data concerning etiology of degeneracy in specific cases.

In the study of causation of mental defects, we are prone to draw conclusions and generalize from a too limited number of facts and there is always great difficulty in obtaining the facts. The histories of the families of the individuals in question are obtained in the form of statements made by one or more relatives, usually the mother or father. In these statements, the personal equation is the dominant factor, hence the statement becomes an expression of opinion rather than the recital of facts. Sometimes there is intentional misstatement, and sometimes ignorance or misconception of the facts. Then again, so little is known of the laws of heredity and the relative value of specific hereditary influences that students are not altogether sure as to the value to be attributed to given facts, or altogether certain as to what facts should be obtained.

The presentation of a few facts concerning the antecedents of certain inmates of the school and colony at Faribault, with a comparison of these with data obtained in a Paris hospital, is the only justification for the preparation of this sketch, although, to be of any special value, these few facts must be supplemented from time to time by additional information and study concerning these and other cases.

For convenience we shall speak of the sporadic and non-sporadic cases. In the former, the defective child is an isolated example of this condition in a family of otherwise normal children. In the latter, all the children in the family are more or less markedly defective mentally. In the sporadic cases, we would look for causes of a parental or con-

genital nature. In the non-sporadic cases we should expect hereditary factors to be dominant. That is to say, in a sporadic case, sickness, intense emotional disturbance, or a poorly nourished condition of the mother during gestation might account for the arrest of development of this particular child, even though, on account of more favorable conditions on the part of the mother during the other gestations, the other members of the family would all be normal and sound. The depressing influence would therefore, in this case, be parental rather than hereditary. Traumatic injury, or sickness during infancy or early childhood, may cause arrest of development and account for some sporadic cases. An injury from protracted labor or the use of instruments at the time of birth also account for some sporadic congenital cases. Some cases undoubtedly owe their condition to inebriety on the part of the father at the time of conception.

Turning to the non-sporadic or hereditary cases proper, there is much greater difficulty in identifying specific causes, and there is more apt to be found a number of possible factors, or poor stock generally. As to inebriety, while there has been no question as to its immense influence directly and indirectly in the production of degeneracy, I am of the opinion that writers on this subject, especially those interested in sociological work but unaccustomed to the scientific interpretation of statistics, have given an incorrect idea of the subject. Dr. Howe, the noted teacher of Laura Bridgman and a member of the Massachusetts commission appointed to inquire into conditions of idiots in the commonwealth, wrote in 1848 that "Eight-tenths of idiots are born of a wretched stock, the condition of which is the result of inebriety or of excesses of various kinds, committed for the most part in ignorance of their dreadful consequences."

This statement which appears to contain an essence of truth has been misunderstood and is largely responsible for the prevalent belief that inebriety is the cause of idiocy generally.

It is not sufficient to find that in each of one hundred cases a certain ancestral condition exists. It is necessary, among other things, to take a hundred families in the general community in which the same condition exists and determine the status of all the children. Again there are usually many facts involved as possible hereditary influences, each deserving careful consideration.

While mathematical statements must be limited to a certain narrow range of facts, the opinions of men of a wide experience, large opportunities for observation, are of value. Bianchi thinks alcohol in small doses of not more than a litre of seven or eight per cent wine in twenty-four hours, a stimulant; beyond this, a poison which tends to destroy the nitrogenous substances of the organisms, etc., and in the long run tending to, and actually producing ethnic degeneration of individual and family. He also concludes that, without sharing the views of the extremists or the optimism of others, we must recognize the fact that a great part of delinquency must be put down to alcohol

directly or indirectly and that many grave, psychopathic forms, originate from the use of alcohol by parents.

In the examination of 2400 consecutive applications for admission to the Minnesota School for Feeble-minded and Colony for Epileptics, we find that in 641 cases only, or 26.7 per cent is there a history of more or less use of alcoholic liquors as a beverage by one or both of the parents and by one or more of the grandparents.

By the father only	- - -	343 cases
" " mother "	- - -	4 "
" " father and mother	- - -	14 "
" " father and grandfather	- - -	100 "
" " father and two grandfathers	- - -	33 "
" " one grandfather only	- - -	112 "
" " two grandfathers only	- - -	20 "

Of the above 641 cases, 204 were epileptic.

In the further analysis of 140 of these cases, consecutively from the first, we find:

First, as to amount of liquor used:

Slightly—1 father.

Moderately—50 fathers, 1 mother.

Excessively (drunkards)—79 fathers, 4 mothers, 72 grandfathers, and 2 grandmothers.

Second, as to collateral relatives:

Brothers—328

Sisters—327

Of these, 307 brothers and 291 sisters were stated to be in good health.

There were five deformed children. One hundred and seventeen brothers and one hundred and three sisters were dead.

Third, as to the age of the parents at the time of the birth of the children:

The fathers:

20 to 25—in	12 cases
25 to 30—"	29 "
30 to 35—"	32 "
35 to 40—"	26 "
40 to 45—"	25 "
45 to 50—"	17 "
50 to 55—"	6 "
55 to 60—"	4 "
60 to 65—"	3 "
No data—"	13 "

The mothers:

15 to 20—in	3 cases
20 to 25—"	41 "
25 to 30—"	26 "
30 to 35—"	40 "
35 to 40—"	22 "
40 to 45—"	20 "
45 to 50—"	2 "
No data—"	12 "

Bouneville, in his report of the Bicêtre in Paris for the year 1900, states as follows:

"The child is subjected to the consequences of alcoholism under a number of forms: First, chronic alcoholism of the father or mother or of both. Second, alcoholism or drunkenness at the time of conception. Third, during foetal life as a consequence of the alcoholism of the mother, of blows received, or of the emotion experienced by her during her pregnancy. Fourth, the same alcoholic excesses, the same emotions during the period of nursing and subsequently. Two thousand and seventy-two boys and four hundred and eighty-two girls, idiots, epileptics, imbeciles, and hysterics have been admitted, the first at Bicêtre since October 1879; the second, at the Fondation Valle since March, 1890, up to the 31st of December, 1900, or a total of 2554 admissions.

We have given in the following table the conditions of the mothers and fathers of all these children in respect to alcoholism. It gives us at a glance an idea of the role of alcoholism in the production of idiocy and epilepsy.

	Boys	Girls	Totals	
The fathers of	785	148	933	were given to alcoholic excess.
The mothers of	67	13	80	" " " " " "
The fathers and mothers of	30	10	40	" " " " " "
Of	340	110	450	we have no data.
The fathers and mothers of	850	201	1051	were sober.
Totals	2072	482	2554	

Conception during the drunkenness of the father has been found in 235 patients and probably among 86 more. So, if we count these last, 12½ per cent of the children were conceived during drunkenness, not counting the 450 of whom we have no data of the conception.

According to our statistics, we find that 36½ per cent of the fathers were given to alcoholic excess, 3⅛ per cent of the mothers 1½ per cent of both fathers and mothers, or 41⅞ per cent of parents were

given to alcoholic excess and 41 $\frac{1}{8}$  per cent of the parents were sober.

These statistics taken up to the 31st of December, 1900, including our former statistics, put clearly in evidence the vicious effect of alcoholism.

Those who are interested in this question can read of many social, clinical and anatomical detailed observations in our Comptes Rendus de Bicêtre, 1880-1900.

MINUTES OF QUARTERLY CONFERENCE  
OF  
BOARD OF CONTROL AND EXECUTIVE OFFICERS  
OF MINNESOTA STATE INSTITUTIONS,  
OFFICE OF THE BOARD, ST. PAUL, MINN.  
AUGUST 6, 1907.

Present: Members of the State Board of Control—Chairman S. W. Leavett and P. M. Ringdahl; Superintendents—Coleman, Yanz, Welch, Kilbourne, Tomlinson, Dow, Tate, Rogers, Whittier, Randall, Warden Wolfer and Marclely.

Visitors present were, Dr. F. S. Wilcox, Dr. Haldor Sneve, Dr. Brown, Dr. E. M. Randall, Mrs. Mira B. Gray and A. C. Dorr.

Dr. Haldor Sneve read a paper entitled, Treatment of Inebriety and Narcotism (page 3). The Doctor set forth various phases of inebriety and narcotism and the reclamation of victims in a general manner, but treated the subject especially in reference to the best methods to be pursued at the future state institution for curing inebriates and narcotics. Dr. A. C. Rogers followed with a paper on the Influence of Inebriety in Heredity of Mental Defect (page 32).

The discussion which ensued embraced both papers and turned especially on the point of heredity. A wide divergence of views developed.

Dr. A. W. Wilmarth, of Chippewa Falls, Wisconsin, who was to have read a paper on Sentiment in the Classification of Defectives, was unavoidably absent.

Conference adjourned.