

Returning again however to the evolution of the state of moral insanity, we have Morselli admirably quoting Lombroso by saying that the conception of moral insanity cannot be well attained by researches in criminal anthropology. The anthropological school call it the type of the mental delinquent, or congenital; we say moral insanity. What this means is indicated in Dr. Bryce's reference to the Jukes' family, whose destiny has been proved by Dr. Drysdale, who found that for seven generations including 709 individuals, every one was either idiot, murderer, prostitute, thief or robber. Setting aside as impossible, the supposition that all these chose to be wicked, we must assume their conduct to have been the results of depraved organization or the passing on from parents to children, along with their physical, their intellectual and moral proclivities.

Referring to educational influences, we find Brazon saying all children have evil tendencies, etc., and that these tendencies are corrected by education. We find this influence for good for instance in the boys of reformatory schools. But according to the teratological, congenital theory this change could not take place. Approaching the same point from another direction, Dr. Bryce points out that the whole result (moral insanity), is not to be understood to be due to organization alone, and no part of it to association and training. These latter must always be credited with decided influences on character. Says Morselli, "It would be absurd and ridiculous to hold that education does no good; we are the products of two factors, heredity and our own surroundings; in a large number of individuals heredity predominates; in a very small number the surroundings prevail over heredity; the result depends on the special circumstances." Dr. Biffi's experience unfortunately confirms the statement, how little is achieved by educational institutions, where children wanting the moral sense are confined. As Dr. Bryce puts it, while education or training, may exercise decided influences in the determination of conduct, the most reliable, the most persistent types of character are the inherited. And this for many obvious reasons one, of which fixity of type, or the faithful reproduction of ancestral traits, is nature's only method of fortifying her long and laborious advance from low to high. Concisely expressed intellect, tastes, desires, will take action as forces and like all nature's forces must

express themselves on lines of least resistance. Along this line comes in the influence of climate and physical surroundings on character. President Buonomo, taking up the discussion developed the point here neatly set forth, where he spoke of the *camorra*, the animal of the slums, (the Bonthon of Sir Walter, or Abel Magwitch of Dickens), living in a stratum of society with a character of its own, "which has taught him that in the circle of his society, he who has recourse to force is respected; he is honored by his chums when coming back in the night, he is able to detail those arts of prowess which we call infamous, but which, in his society, are the badge of honor." This in such is not a morbid disorder, "it is with him a natural, physiological law." Habits, as alcoholism, or use of opium are capable of just such results as flow from confirmed bends of character. Accidents as cranial injuries have been known similarly to alter the whole character of a man. Says Dr. Bryce, after illustrating this point, "Could anything more clearly prove the dependency of mind and moral qualities upon the integrity of brain structure?"

Other points are afterwards taken up as have been those we have touched, and on the point of the protection of society all are agreed that all must be held amenable to the law of the land in some way or other. For some there must be punishment, but with more there must be, says Dr. Bryce, the reformation (attempted) of the criminal. "To reform the vicious there must be brought to bear on them influences closely related to those by which good characters are formed in every well-conducted family."

BACTERIOLOGY.

The Air of Coal Mines.

T. C. Nasmyth, M.D., D.Sc., Edin., has recently published the results of some interesting experiments on the air of coal mines. Since the late Dr. Angus Smith's accounts in *Air and Rain* on the air of coal mines but little has been written:—

"Dr. Smith's observations were made in the year 1863, and since then the methods of coal mining, including ventilation, have been completely altered, so that the air of the mine of to-day may be totally different from what he experienced. As I have been born and brought up in a mining district the subject was one that naturally interested me, and