

“On the Causes of Human Degeneracy”

by Professor Eugène Dally

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Poor family of urbanized Paris (1880)

“On the Causes of Human Degeneracy”

Messieurs, it is my pleasure to submit to the Society a table summarizing the causes of human degeneracy, which I have divided into four groups:

CAUSES OF DEGENERACY

1. *Pathological*. Syphilis, scrofula, rickets, tuberculosis, leprosy, etc.
2. *Toxicological*. Alcohol, opium, ethnic poisons, intoxicants, nutritional deficiencies, pellagra.
3. *Climatic and Geographic*. Goiter and cretinism, extreme altitudes, non-acclimatization, etc.
4. *Sociological*. Urban agglomerations, ethnic intercrossings, military selections, extreme division of labor, cerebral excesses and others, etc.

Now, I must point out that I have employed the word *degeneracy* in the widest sense without any precision. The zoologists and horticulturalists have voluntarily named living things which have lost qualities that a forced rearing has given them and which have returned to their natural existence as *degenerates*. It is used here in a wholly conventional sense; that is, it is rather the cultivated state, animal or plant, incapable of maintaining itself by itself, which might be considered as the result of an unnatural degeneracy. Yet while the tendency to revert to the natural state exists in the products of the animal breeders, it does not among human degenerates, who tend to self-destruction. The sense of the word is therefore very different in these two cases.

Doctor Morel is the only author who has provided a definition of degeneracy, which he has represented as “deleterious deviations of a primitive type.” I propose, instead, that degeneracy be considered as the result of *hereditary organic degradations tending to sterility*. The primitive type notion is of a remote kind, whereas in my definition the probable, though not necessarily inevitable, end of every organic decay is indicated.

One should understand that there always exist groups in decline that will become degenerates if no remedy is employed to meet the conditions of their existence.

I shall now quickly examine some of the causes that manifest themselves

in these four groups. Obviously, the pathological relations which seem to exist among syphilis, tuberculosis, scrofula, and rickets must be stressed. However, I must note that the virulent maladies do not produce all the organic degradations; syphilis and smallpox behave in this respect in an entirely different manner. As for intoxicants, it is above all alcohol which produces, in the same way as opium, hereditary impressions, whereas mineral poisons leave the descendants unscathed.

Among the sociological causes of degeneracy, urban agglomerations, whose disastrous effect is so great, stand out, so much so that certain authors, Doctor Lagneau among others, have not hesitated to attribute to their augmentation the proportional decline and end of nations. In fact, it is in the heart of such urban crowding that the most active causes of degeneracy operate with the most intensity. Based on my analyses, I believe it is necessary that at all costs we take measures to repopulate the countryside. I cannot condemn strongly enough the economic and political speculations that attract masses to our cities, the urban core of which, according to Doctor Lagneau, yields a mortality rate one fourth higher than that found in the rural areas. Now, one of the most alarming consequences of this urbanization is the depopulation of France. Undoubtedly, urbanization combines well with other causes, notably the voluntary sterility which has spread throughout Normandy, to account for our present depopulation.

As for the means we can employ to put a stop to degeneracy, I would emphasize the necessity of proper choices of marriage partners. With respect to contemporary mate selection, it is truly distressing to behold pecuniary and social circumstances being given top priority over all others.

In conclusion, I must remind you that Professor Levasseur and Jacques Bertillon have extended a cry of alarm in showing that whereas the French population constituted 38% of the European population in 1700, last year in 1880 it did not represent more than 13%.

DISCUSSION

Professor ANDRÉ SANSON (Professor of Zoology at the Sorbonne). I would like to offer a slight rectification concerning the opinion, Professor Dally, that you have seen to attribute to us zoologists. You stated that in zoology scientists consider the animals of the butcher's shop as degenerates. On the contrary, we zoologists consider such animals as perfections, and they are such, in fact, not only from the economic point of view, but also from the physiological point of view. I shall cite on this subject the research of Monsieur Regnard,

professor at the agricultural college here in Paris. Monsieur Regnard, desiring to examine the blood of animals sold in the butcher's shop, told me that he expected to find their blood scantily supplied with globules. I did not at all share this viewpoint and, indeed, Monsieur Regnard found instead that the blood of fattened animals possesses a relatively superior oxygen capacity. These animals are raised in the best conditions so that they can flourish anatomically, and they flourish in actuality, too. Consequently, Professor Dally, you seemed not to have appraised the opinion of zoologists in an exact way.

I also do not share your prejudices against urban agglomerations. These agglomerations are a consequence of the greater well-being that one acquires in such a setting and of the happier and better life that one leads in the big cities. Their development is therefore the result of a legitimate aspiration and is very favorable from an economic standpoint. The reasons for the depopulation of the countryside do not come from that, and the true reasons for such will no longer exist the day when our laws, instead of being unfavorable to large families, as is the case today, become on the contrary advantageous.

Doctor LOUIS DELASIAUVE. You spoke, Professor Dally, of the diminution of the population in Normandy, because of voluntary sterility. This progressive reduction of inhabitants is real. In the department of Eure, especially, it has been evidenced in a series of reports prepared by Doctor Fortin of Evreux, Secretary of the department's Board of Hygiene. This honorable gentleman early on reveals his sense of foreboding over Normandy's population decrease, without indicating precisely the cause. From year to year, after 1848, the gradual decline of the total population, which was initially 430,090 inhabitants, has proceeded to where, in the latest census, it has now fallen to 376,000. In 1830, births totalled 9,343; in 1832, 8,690; in 1853 they were only 8,146, and in 1854, but 7,938, even though the number of marriages had little changed (1830—3,770; 1853—3,418; 1854—3,430). The latter should have been higher, because 1830 was an exceptional year for births; but, marriages only amounted to 2,932 in 1832 and 2,312 in 1834.

Normandy's voluntary sterility is therefore unquestionable. But, most strikingly, it coincides with a perceptible decline in territorial revenues. Large farms rent themselves out with difficulty: tenders exceed the demand. Is this concurrent surplus farmland situation something to which we must attribute the population decline? Certainly it is responsible for a good part of it. However, there are other contributory causes that must be invoked. The desire for comforts is satisfied proportionately to the limitation of the number of children. One wishes the same life for his offspring as for himself—being comfortable, having

a house, plenty of food, money for marriage, and relative wealth. As for the farm harvests, notwithstanding certain foreign imports, they have been at least equivalent to those gathered in the old days, and generally even provide an excess yield and greater return. Are such harvests curbed as expenses increase? Yes, perhaps, if the aforementioned will not result in the farm hands' salaries being raised and the price of livestock doubling. One can therefore explain the reduction of farms in Normandy as being an indispensable element in the total of benefits for the region's inhabitants.

Doctor GUSTAVE LAGNEAU. Professor Dally, you just highlighted the bad state of our urban populations. In order to better appreciate the noxious influence of urban living conditions, it is necessary to note that in the large cities the ratio of adults is often much higher than in the countryside, because of the substantial numbers of young townsfolk sent out to the countryside to be brought up, and the immigration into the cities from the countryside of many rural adults.

Now the adults, proportionally more numerous in the cities, are at the procreative age and possess a slight mortality. The population of the cities will therefore seemingly present a considerable birth rate and a minimal death rate. However, on the one hand, instead of reporting the births to inhabitants of all age groups, one only reports births to adults falling in the prime reproductive age range, the birth rate is found to be not any higher than that of the countryside; and one will also discover that the urban birth rate is much more frequently comprised of illegitimate births. Further, in our present social state, illegitimacy nearly doubles infant mortality.¹

On the other hand, if one studies the mortality rate for all ages, one ascertains that for almost all age groups the mortality rate is substantially higher in the large urban agglomerations, like Paris, than in the countryside.²

With regard to aggravating causes of mortality within our large cities, though without wishing to discuss here typhoid fever and other diverse causes of death, I shall briefly review how phthisis cruelly deals with those countryside people who come to the cities to devote themselves to sedentary occupations. Monsieur Chatin, of Lyon, has pointed out with what frightful rapidity the young Savoyards who come to his city to take a job as a winder are attacked by this ailment.³ Quite

¹ Gustave Lagneau, *De l' influence de illegitimate sur la mortalité* (*Ann d'hygiène*, t. XLIV and XLV, 1875-1876).

² Gustave Lagneau, *Etude de statistique anthropologic sur la population parisienne* (*Ann. d'hygiene*, t. XXXI, 1868).

³ Chatin, *De la phthisis des tisseurs et des dévideuses à l'hôpital de la Croix-Rousse*, 1867, p. 15, and extract in *Lyon médical*, 1869, and *Gaz. hebd. de méd. et therap.*, 23 July 1869, p.480.



The mortality rate of our countryside people is substantially lower than that of our urban dwellers.

recently, Doctor Ruelle, a member of the Commission of Hygiene of the 19th arrondissement of Paris, stated with respect to phthisis: “Among all these adults who arrive to us full of health, how many you find who have moved into a small or unventilated dwelling, and are soon and without fail struck by a malady!” I shall add, just as Doctor Gouraud has,¹ that I have been persuaded to point out that this morbid influence of the urban habitat primarily affects immigrants arriving from the mountain districts.²

With respect to the low birth rate of our Normandy populations, of which you have spoken, Doctor Delasiauve, I believe that it is entirely due to social conditions, and not from a degenerative process or a physiologic inaptitude. Our Normans are descended, on the one hand, from the ancient Celto-Gallic people who occupied the region during the Roman and Frankish eras, and, on the other hand, from Scandinavians who began settling Normandy around the close of the

¹ H. Gouraud, *De l'action des différents climate dans le traitement de la phthisis pulmonaire* (*Union médicale*, 28 November 1872, and *Bulletin de la Soc. Méd. d'émulation*, 9 November 1872 and 7 March 1874).

² Gustave Lagneau, *Des mesures d'hygiène publique propres à diminuer la fréquence de la phthisis* (*Ann. D'hygiène*, t. XLIX, 1878).

9th Century. Now, these latter settlers made light amongst themselves with a remarkable fecundity, as attested anyhow by Jornandès, historian of the ancient Goths who left Scandia, as well as by Robert Wace, Dudon de Saint-Quentin and Guillaume de Jumièges, historians of the *Northman* invaders of our Neustria.¹ In order to convince oneself that the low birth rate of our present-day Normans has to do with a voluntary restriction, it is sufficient to note that our Normans today still display a considerable fertility, like other peoples of the North Germanic race, or Teutons, which statistical research performed by Doctor Bertillon, Sr. has plainly revealed.² Our Normans frolic with one another with the fullness of the generative faculties; and, if they voluntarily limit the number of conceptions, they cannot prevent that among these conceptions the proportion of multiple pregnancies remains fairly large.

Now, Professor Sanson thinks that certain new laws might be able to generate a higher birth rate and, by consequence, an increase in our population. In general, one avoids procreating, or limits the number of offspring, in order that one can assure as much as possible his children a social situation at least as favorable as that which he himself enjoys. Clearly, any legislation that creates an obstacle to marriage restrains the legitimate birth rate; by contrast, any measure that works towards improving the means of existence and people's prospects or careers may increase the birth rate. However, as the necessary measures and laws are often difficult to determine, it can only be of great utility to have them indicated.

Monsieur LUCIEN RABOURDIN. I request permission to make just a few remarks from the economic point of view, an area in which I am most especially engaged. It seems to me, Professor Dally, that you are alarmed more than is reasonable by the apparent depopulation of France.

If one attentively studies the population growth chart, one will note that this curve is periodic. It is, among other things, composed of a set of oscillations that shows in turn the slow and rapid increases in population. We have experienced a slow period of growth since around 1847, but the curve is already rising again and we are now entering the following period: one of rapid growth.

Monsieur LIONEL BONNEMÈRE. Professor Dally, you say that one of the best means to employ in order to put a stop to the depopulation of the countryside is to render the life of our peasantry more attractive. Obviously, this

¹ Jornandès, *De Getarum sive Gothorum origine*, cap. III, p. 427, coll. Nisard. – Robert Wace, *le Roman de Rou*, t. I, p. 38, no. 774, 1827. – Dudon de Saint-Quentin, *Hist. norm. scriptor.*, p. 62, 1619. – Wilhelm Gumenticensis, *ibid.*

² Jacques Bertillon, *Démographie de la Seine-Inférieure* (Assoc. pour l'avance. des sciences, session in Havre, 1877, p. 749).

improvement would prove useful, but I do not think that a more attractive life will suffice in order to retain the inhabitants of our rural areas within the places of their birth. I believe that the key to determining the cause of the diminution of the population can be found by investigating the same manner of farming in use in certain regions.

In the part of Maine-et-Loire that is called *Bocage Vendéen*, where the peasants are not landowners but cultivate small farms, the number of children is considerable. In effect, hirelings are expensive; so, numerous children constitute wealth. Along the banks of the Loire, by contrast, in the arrondissements of Angers and Saumur, the peasant is a landowner: there are hardly any children. For in reality, a man who possesses 1 or 2 hectares and who, thanks to the cultivation of this small property, is happy, above all if his land is a vineyard, will bequeath poverty to his children, who in afteryears will be forced to place themselves in the service of others. That is not what one will see in Anjou.

Now, this same phenomenon which I have just described can be observed in many other regions of the West.

Therefore the conditions of farming should perhaps be modified. But, for various reasons, a discussion on this point will not fall within the circle of studies of our Society.

Doctor COUDEREAU. I shall first make a remark on the subject of degeneracy. It appears to me, Professor Dally, that in the case of farm animals you have not sufficiently distinguished a fatty degeneracy from a fattening, and this is perhaps the reason why you are not in agreement with Professor Sanson.

With regard to the causes of depopulation, I think that the genre of religion is not entirely unconnected.

Among Protestants, a limitation of the number of children exists less than it does among the Catholics. Among the latter, they regard work as a punishment of God, and endeavor as much as possible to exonerate the children. Among Protestants, on the other hand, with the English, for example, they consider work as the means to creating wealth, and children are trained to migrate far and wide if necessary in order to gain wealth by their labor.

Madame CLÉMENCE ROYER. It seems to me that by investigating ways to counteract the depopulation trend in France one is dealing with an issue that is only tangential to the question posed by Professor Dally. The question calls for

researching what the causes are of the degeneracy of our species. Now, these causes do not seem to me to be pathological, but rather social, and these social causes appear to me to produce effects whose importance is incontestable. Whatever might be the accuracy of your observations, Monsieur Rabourdin, it is nonetheless true that the relative depopulation of France is an incontrovertible fact, because we now only represent 1/33rd of the European population instead of the 1/13th that we had formerly been. There is a real danger here if we do not watch out; because while our race becomes more abated, other races are increasing with a disquieting rapidity. The yellow race, for example, which projects itself in all directions and above all extends throughout America, will end up by acquiring worldwide predominance. I believe that there is only one effective remedy against this danger. I am ever more conscious of the need to restore morality upon positive bases, and have come to comprehend the necessity of introducing morality into education. Now, with any scientifically established morality, it is necessary to determine and explain the duties of the individual versus the species. The idea of, and belief in, these duties therefore ought to be inculcated by educators, and all the proposed remedies to combat the difficulty in question will continue to remain ineffective, as long as they have not at all seen to it that this first principle of general morality regarding duties is entered into the conscience of each person.

Monsieur GABRIEL DE MORTILLET. Regarding the causes of our depopulation, Doctor Coudereau a few minutes ago made a comparison between Catholics of one nation with Protestants of another. This is not the way you should have proceeded, Doctor Coudereau. What one needs to do is to compare the results produced by each religion under identical circumstances. Now, if one compares the Catholics and Protestants in those countries where they live side by side, one invariably finds that the Protestants have fewer children than the Catholics.

Doctor GUSTAVE LAGNEAU. I also do not believe, Doctor Coudereau, that you can attribute to the Catholic religion, compared to the Protestant religion, the restrictive influence that is currently acting on the birth rate. Two of our old provinces, both equally Catholic, and bordering one another, present a notably different birth rate. In Normandy, the birth rate is so sufficiently weak that it is surpassed by the death rate; by contrast, in Brittany the birth rate is considerable.

The PRESIDENT of the Society (Doctor THULIÉ). I see that there are yet several members who have requested to speak. However, as the hour is advanced and because other members still desire to take part in this most important discussion, I shall carry it over, if the Society does not object, to the next meeting. It now being 6:15, the meeting is hereby adjourned.