OPENING ADDRESS[1]

Edmund B. Wilson, Columbia University, New York, New York

Members of the genetics and eugenics congresses:

We had hoped and expected that the members of the congresses would be greeted tonight by COLUMBIA UNIVERSITY, in the person of its president, Doctor NICHOLAS MURRAY BUTLER, but to our acute regret he found it impossible to be present. In his unavoidable absence I have been honored by the request to speak for him. Unfortunately I am prevented by illness from being here in person and must send my message in written form. I cannot in any degree fill Doctor BUTLER's place but I am most happy to convey to you a warm greeting and welcome from him and from the university of which he is the head.

Every geneticist should find himself at home at COLUMBIA UNIVERSITY which has for many years been a centre of research in this field under the leadership of the president of the genetics congress, Professor T. H. MORGAN. A prominent feature of genetic research at COLUMBIA UNIVERSITY has been the study of the phenomena of crossing over and their cytological interpretation. The discovery of these phenomena was one of commanding importance in the history of genetics, although we must admit that we do not yet fully comprehend their underlying mechanism. But while we have been trying to puzzle this out we have discovered another kind of crossing over, one that is no less important for the advance of our science and may in the end prove to be even more significant for the advance of our civilization. The presence here to-night of our friends from Europe bears witness to this, for they have crossed the sea in order to enter into synaptic union with us, to perform a friendly exchange of genes and, let us hope, to induce rejuvenescence in both.

Crossing over of this type is a phenomenon of good augury, not alone for the advancement of science but also for the promotion of good will and better understanding between the nations of the world. Our welcome to those of our friends who have come from older countries beyond the seas is therefore one of especial warmth in these troubled times.

We Americans are sometimes thought of as a rich and powerful creditor nation which seems to stand coldly aside with selfish indifference to the severe trials through which the older nations of Europe are passing. It must be said that a few of our public men have sometimes seemed to give such an impression, but these men do not represent the attitude of our most

[1] Address at the dinner tendered to the delegates to the genetics and eugenics congresses at the Waldorf-Astoria Hotel in New York City on August 23, 1932.

intelligent and right-thinking people. And I am proud to say that in my opinion no man in the United States works more constantly, more intelligently and more effectively for the cause of international reconstruction, peace and good will than the man whose greeting to you I bear, the president of COLUMBIA UNIVERSITY.

For my own small part, I am one of the multitude who are neither rich nor powerful, and certainly my knowledge of international finance is so little that only a microscope of high power could make it visible; but let me assure you that we men of science, above all perhaps we of the older generation, can never forget nor sufficiently recognize the enormous debt that we owe to our brothers beyond the seas. To speak of this debt is to utter a commonplace. But for me, a veteran of the old guard, it is far from a commonplace. Do not grudge me the pleasure of saying that I can never forget the uniform and helpful kindness and good will which during my *Wanderjahre* in Europe I received from men of science, old and young alike. Some of these men I knew only slightly. Others, like ANTON DOHRN or THEODOR BOVERI, came to be numbered among my dearest friends. Some were famous leaders in their day, such as HUXLEY, HAECKEL, LEUCKART and VIRCHOW; others were still obscure students. But I cannot remember one instance of rudeness or harshness on their part and from many I drew encouragement and inspiration.

Let me turn for a few moments to the field of genetics. I do this with some diffidence; for, as you well know, I am not and never was a geneticist and can be accepted as such only by courtesy. It may therefore surprise you if for a moment I boast of a certain achievement in that field, one for which I have never received any credit. More than forty years ago I discovered a new and strongly dominant Mendelian character which I was able to recognize as such long before the resuscitation of MENDEL'S work in 1900. That character is well known to you all, for it is at this moment the honored president of this genetics congress, THOMAS H. MORGAN. At that time he, like myself, was squandering his talents on embryology, a subject for which he had a passion from which he has never recovered. It is in fact an open secret that even now he sometimes escapes from the austere heights where Drosophila has its home in order to indulge in the illicit pleasures of the egg and its development. But even at that early time I saw great possibilities for genetic experiment with this character. The opportunity for such experiment did not come until the year 1904 when I was able to effect a cross between T. H. MORGAN and the Department of Zoology at COLUMBIA UNIVERSITY of which I happened to be at that time the executive officer.

The experiment succeeded beyond my wildest expectations. Already in the F_1 generation appeared a group of strong dominants, such as A. H. STURTEVANT, CALVIN BRIDGES, H. J. MULLER and others. After this, I had only to stand, so to speak, on the side lines, a mere observer of the successive stages of the grand game which they played. I watched with sympathetic interest the successive discoveries in that little laboratory by which the stately edifice of the Drosophila genetics was reared. It has been suggested that this should culminate in a *Zeitschrift für Drosophilalehre und Morgankunde*. This periodical has not yet actually appeared, but I hope to live to see it realized in my time. When it takes on actual form, I shall claim it as my greatest achievement.

All good wishes for the success of the congress and greetings to you all.

ADDRESS OF WELCOME

A. R. Mann, Cornell University, Ithaca, New York[1]

Mr. Chairman, Ladies and Gentlemen:

CORNELL UNIVERSITY is sensible of the honor bestowed upon her by the selection of this university as the meeting place for the Sixth International Congress of Genetics. The presence here of the NEW YORK STATE COLLEGE OF AGRICULTURE, with its achievements in genetics and its productive work in many related fields of plant and animal science, has made it possible for CORNELL UNIVERSITY to serve as host to this congress.

By reason of our physical remoteness from many of the world's great centers of learning, the participation of the American states in international gatherings of men of science and learning has never been in proportion to our interest in such gatherings or our desire to share in their benefits. When, therefore, such meetings are held on this continent, drawing to us the leaders from many lands, our anticipation of them assumes large proportions. This is the fourth international congress dealing with scientific problems of biology and agriculture held at Ithaca within a period of seven years, bringing to this campus distinguished figures from all the world. It has been an extraordinary privilege.

In any field of learning, and especially in the experimental sciences, contact among the workers in the field is a recognized aid toward reliable progress and a great incentive to superior achievement; and it is conducive to that humility of spirit which appropriately envelops careful scientific study. Correspondence and the interchange of publications between individuals—never sufficiently well done—must always be the main dependence; but the association is vastly enriched when personal acquaintance has entered and confidence is established for the free exchange of ideas. This is, indeed, one of the most valuable products of such international gatherings.

This congress is primarily representative of the colleges and universities of the world. The character of your program emphasizes the significance of the universities as places of research and as contributors to the world's store of knowledge and to man's understanding of the universe. It is a revelation if not a consternation to the laymen whither your studies lead you into the hidden mysteries of life. The geneticist is beginning to pry open some of the deepest concerns of life, age-old in their interest and speculation, of major importance, yet long baffling understanding. The rays of light already admitted stir the imagination not only as to impending

[1] Provost of CORNELL UNIVERSITY.

knowledge of life but also as to the ultimate utility for human, plant, and animal betterment. When one contemplates such work he sees not only its importance in the enlargement of human understanding; he is equally impressed with the enrichment it brings to the university as a place for the higher training of students for productive careers both in learning and in the manifold occupations and professions in the world of affairs. It is well that even grave physical distress and economic crises shall not check or thwart the progress of discovery and interchange of ideas of such significance for human development.

The field of exploration called genetics is one of the newest and most difficult outreaches of scientific effort, even though mankind has always speculated about the processes of reproduction and heredity. Set apart as a specialized field of inquiry less than a third of a century ago, clothed with obscurity as to method of attack, it has, within the present generation and with the aid of closely related fields of science, established its place, marked its course, and drawn into itself some of the ablest and keenest minds in the universities of the world. The membership of this congress and the content of your program are expressive of the high worth and recognition of your field of science. That this congress will give clearer insight and greater meaning and impetus to your efforts there can exist no question.

Honored by the presence at this time of so great a host of fellow workers from our sister states in America, and doubly honored by the great number of distinguished leaders in genetics and in related fields of biological science from other nations, whose presence makes this congress particularly notable, CORNELL UNIVERSITY places every facility of this institution at your command. We wish to serve you in whatever ways will make your brief sojourn here most comfortable and profitable. We trust that you will avail yourselves of our readiness to respond to your interests and desires. On behalf of my colleagues and of the administrative officers of the university, I cordially greet you and bid you hearty welcome.

RESPONSE

Richard Goldschmidt, Kaiser Wilhelm-Institut für Biologie, Berlin-Dahlem, Germany

May I be permitted to thank you, Mr. PROVOST, in the name of the members of this meeting for the friendly and gracious words of welcome which we enjoyed hearing now. There is not a single one among us who has not looked forward to this meeting five long years. Finding ourselves now on this beautiful campus which is towering above the ordinary abode of men like an island of peace and beauty, our mind most naturally turns to the Homeric Island of Ithaca and the adventures of the hero Odysseus passing through all possible dangers, his heart set to his return to Ithaca. Certainly the modern Odysseus, the geneticist, had to undergo no less hardships on his way to Ithaca. There was pessimism, disguised as the nymph Calypso, who tried to keep the wanderer lulled into lassitude in the glittering cave of inactivity, from where he would never again have found his way home to Ithaca. There were Scylla and Charybdis, one urging to cancel the meeting, the other to postpone it. But Odysseus sailed clear of both towards his goal. And there was the Cyclops Polyphemus in the garb of economic depression, trying to smash up everything and everybody. Though he succeeded in decimating the number of Odysseus' crew, the hero finally escaped his fangs. Safely he has landed now in Ithaca to take possession of his own. Here his spouse Penelope, that is, the local geneticist, is expecting him, Penelope who lived all these years bent over her spindle as it fits a cytologist and geneticist. And like the hero of old the geneticist Odysseus has strung his bow and arrows over his shoulder, the bow of constructive imagination and the arrows of analytical experiment, and as Homer says, they are clattering on his shoulders as he marches along. He is ready to shoot his arrows at the treacherous suitors of Penelope, at ignorance of every description. And we are confident that there will be good shooting these days.

But here the comparison with old Ithaca fails at one decisive point. When classic Odysseus returned home, he had to hide first in the hut of the divine swineherd Eumaeus, and he entered the palace disguised as a blind beggar. Modern Ithaca however has admitted us at once into its palatial grounds. If nevertheless some of us are feeling rather like blind beggars, it is because the splendor of this seat of learning has blinded us and because the greatness of your hospitality makes us feel like beggars. Let me then repeat the assurance of our heartfelt gratitude. We shall try in our work of these days to prove worthy of the beautiful setting of this classic island of Ithaca.