

text. Expensive works will be returned on request. With octavo publications it is assumed that the request to return "uncut" applies only to the tops of the books, for every page must be accessible to the recorders.

It is quite impossible to explain exactly what classes of books are required for the work. We therefore wish to receive from each publisher his book-lists as they appear. From these we shall make a selection. In cases of doubtful admissibility, we shall order the book for examination. It is, however, understood that, in so doing, we undertake no obligation to cite a work which is not found to fall properly within the scope of our bibliographies.

Already the English publishers have signified their willingness to cooperate and recent visits to a number of American firms elicited an equally favorable attitude. The Concilium has in press a list of some 2,800 periodicals arranged by countries. It is proposed to state for each country, as an appendix to the list of journals received, the publishing firms which maintain regular relations with the Concilium. For this reason we desire each publisher whom this circular may reach to signify his intention of cooperating and his willingness to have his name given in such a list. At the end of each year each publisher will receive cards showing which of his books have been cited. Authors will also further the work if they will assure themselves that their publications reach Zurich. When once the custom is fairly established, it will be found useful to all concerned, and the publisher, while acting in his own interest, will do a great service for the advancement of knowledge.

The preliminary list of the 2,800 periodicals which Dr. Field has published in his present report includes about 450 from the United States. Of these 450 publications of repeated or periodical nature less than 175 reach the Concilium regularly. The other 275 must be consulted elsewhere, if at all, or written for with resulting increased cost and loss of time, or one must depend on the chance courtesy of the individual authors. A cursory inspection of the list of the American journals which are "insufficiently easy of access" to the Concilium includes many medical journals of the subscription class, but by no means all of such journals, a surprisingly large number of the research publications of our universities, such, for example, as the "Bryn Mawr Mono-

graphs"; "Biological Lectures of Woods Holl"; "Bulletin of the Laboratory of Natural History, University of Iowa"; "Bulletin, Syracuse University"; "Columbia University Biological Series"; "Memoirs of the Biological Laboratory, Johns Hopkins University"; "Princeton University Patagonia Expedition"; several series issued by the University of California, and others. Some of our oldest and most widely known learned societies, as well as more recently organized ones, are not on the list of fully cooperating institutions, such, for example, as the American Philosophical Society, the Linnean Society of New York, the New England Zoological Club, Essex Institute, and the Philadelphia, Chicago, Michigan, Ohio and Kansas Academies and even the National Academy of Sciences at Washington. Many of our agricultural experiment stations fail to send the publications and even the Biological Survey, Bureau of Animal Industry and some other bureaus of the Department of Agriculture at Washington are not fully cooperating. In like manner many of our state natural history and geological surveys and boards of agriculture which publish more or less matter which falls within the scope of the bibliographies of the Concilium fail to send their publications.

An opportunity to advance the cause of science is here afforded to all American publishing agencies, and to American publishers to bring their publications very effectively and in permanent form before scientific workers throughout the world. It is to be hoped that the spirit of cooperation which has dominated the Concilium from its foundation will be extended more widely among our American institutions and that individual workers in the various biological and medical fields will take pains to see that all serial publications in their control are sent regularly in the future to the Concilium Bibliographicum, Zurich, Switzerland.

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February 28, 1908

THE INHERITANCE OF FLUCTUATING VARIATION

Dr. R. P. BIGELOW has asked,¹ how I would

¹ SCIENCE, January 31, 1908, p. 192.

account for the correlation between parent and offspring in characters subject to fluctuating variation, if such variations are not transmitted. In reply to this I wish to say, that *I do account* for this by the assumption of hereditary transmission: however, such cases should be carefully ascertained, preferably by experiment, in order to remove all reasonable doubt as to the fact of the reappearance, in the offspring, of such fluctuating variations, which appeared first in the parents.

I have expressed the opinion that *normally*, in fluctuating variation, this will not be the case, simply because it is to be assumed that the cause of the fluctuating variation will not persist through many generations, so that any tendency toward inheritance, even if present, will soon be counterbalanced and paralyzed by the opposite tendency of variation. Permanent, hereditary variations are only to be expected if the variation of the environment keeps on in the same direction, that is to say, when it ceases to be a "fluctuation," and becomes a "mutation" (in von Waagen's sense).

Recently, Dr. D. T. MacDougal² has proposed to settle the question of "inheritance of acquired characters" by experiment, and, *by restoring at the end of the experiment the original conditions*, he intends to show "whether the changes in question are irreversible or not." However, I do not think that the "inheritance of acquired characters" will be disproved, when the effect of the changed conditions "finally disappears, when the inciting causes are removed." Indeed, *this should be the case*. MacDougal hints at the existence of examples, in which the "effect endures for a few generations," and this is all we reasonably may expect under such conditions; and if the experiment has been made on scientific lines, we are fully justified to quote such cases in support of the "inheritance of acquired characters."

MacDougal (p. 122) finds that the phrase "inheritance of acquired characters" is so vague that he has difficulties in properly de-

fining it. But the conditional definition he gives, that it might mean "that an organism makes *adaptive*³ response to its environment . . . and that the continuance of the stimulus . . . results in heritable and *irreversible*³ modifications" is surely incorrect. To my knowledge, none of the advocates of the theory of the "inheritance of acquired characters," in its modern form, ever expressed the opinion that the responses of an organism to the environment are always "adaptive," or that they are "irreversible," when transmitted. The phrase "inheritance of acquired characters" does not need any special definition, since it means exactly what the words say, and since none of the words has an ambiguous meaning, preeminently so in its application to biology.

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February 10, 1908

TO REDUCE SEASICKNESS TO A MINIMUM

REDUCE the system to an alkaline condition. This must be done under the advice of a physician. The urine must be tested two or three weeks before going on board ship. The normal urinary acidity is from thirty to forty degrees. If below thirty, the acid is not eliminated. If above forty, the kidneys are not carrying away all that is in the system. In either case it should be reduced by giving saline waters and antacid treatment. The indican, if any, must also be reduced. Clean out the system thoroughly. Before going on board ship or before the ship leaves the dock, take a strip of soft flannel about six inches wide and three yards long, wrap it around the abdomen and stomach tightly. This will prevent the movement of the internal organs which affect the nervous system. Eat little on board ship and avoid all acids, fruits, salads, beers, wines, etc. Those persons having acid diathesis must not drink lemonade, tea or coffee. Hot water is to be preferred.

EUGENE S. TALBOT, M.D.

² SCIENCE, January 24, 1908, p. 123.

³ The italics are mine.