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CORRESPONDENCE Aug, 1958

N. WIENER · MC 22

[ca. Aug. 1958]

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RANDALL AIRPORT  
P. O. Box 320  
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Dear Dr. Wiener,

I was never fortunate enough to have studied under your guidance, but I feel I know you through my aunt and Uncle, Gertrude and Karl Brackett.

My love for motorless aviation has lead me to my present position, where I am part owner and operator of an airport. This book will introduce you to my love: I hope it will be an interesting experience.

We are happy for your recovery from your recent "un-well-ness."

Respectfully

Bill Terry '43 XVI

William B. Terry Jr  
President

[ans 8/13/58]

[ca Aug. 1958]

## A NEW APPROACH TO MENTAL ILLNESS

In his book "The Living Brain," Dr. Grey Walter states: "The only source of electrical power in the human brain is that of the individual cells." Four years ago, I corresponded with Dr. Grey Walter in regards to the fact that a tremendous source of electrical power is generated by amalgamated silver and mercury fillings in teeth.

As you know for over 100 years, Dentists have been filling teeth with these amalgamations. When any two dissimilar metals are placed in acid or alkaline solutions a voltage is generated. This is the basis of the dry cell batteries as used in flashlights. The principle of galvanic voltages was discovered by Galvani about 1787 in the famous biology experiment, where a frog's leg was made to twitch by use of two dissimilar metals.

The saliva of the mouth being alkaline, each silver filling generates a voltage between other teeth. The phosphorus and calcium of the teeth are also involved. These voltages measured with an electronic voltmeter will read from 0 to 800 millivolts or as high as 8/10 of a volt. Now the voltages of the brain used in hearing--sight--memory and emotions are measured in million parts of a volt. Therefore, a tooth reading 800 m.v. would be 800,000 times the normal brain voltages! This is like lightning striking a radio! The results would be disastrous as you would agree. Electro-cardiograms measure voltages of about 20 m.v. in the heart. I have read teeth filled 30 years ago; they still generate voltage.

Having had a number of silver fillings myself, I know the pain and trouble this voltage can cause. My health was poor until these fillings were removed.

About four years ago, I devised a simple experiment to prove these voltages could affect the brain by causing increased potentials and short circuits. Connecting two small flashlight cells to my gums with copper wire, I found each time the circuit was closed, lightning like flashes appeared to me. These flashes are the same as "Stars" seen when struck near the eyes. I have repeated this more than 100 times with the same results. Having theorized these voltages would circulate currents through areas of the brain and would short circuit into other nerves, I felt that this phenomena was caused by electrical stimulation of the optic nerve. This is probably similar to aural hallucinations of nervous patients. A similar experiment with one flashlight cell completely distorted the electro-encephlogram waves. In Newsweek December 10, 1957 Dr. John Button, Neurologist of East Orange, New Jersey reports of optic nerve stimulation in a blind patient through electrodes imbedded in the brain. The same results can be obtained more safely as I have done through contact on the gums.

I then developed the theory that small current passed through fillings by a battery could neutralize the tooth voltage probably by oxidation. If this were so, then electro-shock therapy probably helped some patients by reducing the voltage in fillings. Readings taken before and after one electro-shock at Philadelphia State Hospital showed this reduction; in nearly every case voltages dropped about 60 m.v.

The electro-chemical effect of silver fillings on the ionization of saliva also needs to be studied. This Hospital is still studying these voltages and effects with an Electronic Volt Meter I have loaned them.

Another theory was that tranquilizing drugs could reduce this voltage. Perhaps as Thorazine does by drying up the saliva. The Philadelphia Bulletin recently states "Tranquilizing drugs probably work by reducing voltage of the brain which, when they shoot up causes anger."

Lobotomies probably sometimes worked by cutting off the nerves feeding teeth voltages to the brain. A less dangerous and more humane method would be by removing the fillings, or oxidizing with a flash light battery.

I told the first dentist to use my meter that I expected the higher the voltage, the more nervous the patient. One month's readings proved this true. Dr. J.H. Manhold of Seton College reports in Newsweek, September 17, 1956; "A study of Naval Cadets at Pensacola show two types of personality, the ones who do not worry; never bother about their teeth; and the too careful, anxious, dependent heteronomous personality takes excellent care of his teeth with regular dental checkups." I wrote Dr. Manhold I believed this proves that worry and anxiety is due to the fillings. These voltages change the personality.

Children's Hospital, Chicago was recently reported by the Philadelphia Inquirer, December 16, 1956, to be stimulating bone growth in legs of deficient children by inserting two dissimilar metals in leg bones. "The irritation caused by Galvanic voltage stimulates blood flow and more rapid growth." Likewise, galvanic voltages of teeth are irritating the brain and over stimulating it.

Three years ago, I explained to a business acquaintance, who is an Electrical Engineer, these theories. I did not know then, but he told me later, his wife had been schizophrenic for eighteen years. The last three years in a Cata-tonic bedridden state, his Doctor told him no one ever recovered in this stage. The day after we talked, he told the Doctor of my theory. The Doctor agreed to removal of teeth. He said his wife was carried to the dental chair. One week later, she walked; in a month he was told his wife was ready to go home.

A young lady secretary to another Electrical Engineer had been having epileptic seizures for seven years. I suggested to the brain specialist treating her that one very sensitive tooth be refilled with porcelain. This was done with good results. She was married six months after correction of tooth and for four years there have been no more seizures.

It would be a simple matter to read nervous patients and remove any filling over 300 m.v. and see the results. **THUS RESEARCH ALONG THIS LINE CAN BE DONE QUICKLY AND AT LITTLE COST.** Investigation of the effects of these voltages and currents in cell growth may give clues to the cause and cure of cancer, as well as many of the forms of nervous disorder.

I realize I have only scratched the surface in this search for an answer to nervous problems. Many experiments enter my mind that can be made to add further proof. My sincere hope is this work can be studied and amplified to a point by some research center that instead of one cure, hundreds may result and prove these teeth fillings are the major cause of nervous disorder and cancer.

**AMERICA DESPERATELY NEEDS AN ANSWER TO THESE PLAGUES, CANCER AND NERVOUS DISORDERS.**

*Frederick E. Teal*  
Frederick E. Teal  
8 Martins Lane  
Berwyn, Pennsylvania



Sewall Hall - Box 156

Boulder, Colorado.

August 1, 1958

Dear Dr. Wiener,

I am taking the liberty of writing to you since you are an authority on Cybernetics, and since Cybernetics is interrelated with Delayed Side-Tone, I would appreciate any/all information you would be able to give on the inter-relationship of these subjects. The purpose is for Speech Science, and part of our program has included a surface knowledge of Cybernetics. We all feel there is a great deal of validity to the study. Now, if you have any pamphlets, or other materials which would aid the study of Delayed Side-Tone allied with Cybernetics, would you send the materials please? It would truly be appreciated by everyone in

Speech Science, especially since we are  
all interested in furthering  
knowledge on the subjects spoken of.

Thank you for your time and  
courtesy.

Sincerely,

Janette Hellegers

Box 156 - Sewall Hall

U. of Colorado

Boulder, Colo.



THE SCIENTIFIC RESEARCH SOCIETY OF AMERICA

DU PONT EXPERIMENTAL STATION BRANCH  
WILMINGTON, DELAWARE

August 4, 1958

Professor Norbert Wiener  
Department of Mathematics  
Massachusetts Institute of  
Technology  
Cambridge 39, Massachusetts

Dear Professor Wiener:

Our branch of the RESA has asked me to extend to you an invitation to address our group on some aspect of mathematical science of interest to you. Our group consists of chemists, engineers, physicists and some biologists. About 250 persons attend our lectures, including a few wives. Our objective is to become familiar with interesting new concepts in fields of science not closely connected to our own work. We are most anxious to hear firsthand some of your ideas and thoughts.

If you are able to accept our invitation, we could arrange a specific time this fall or winter most convenient to you. We have complete lecture facilities at the Experimental Station, and we would be most pleased to take care of making all the necessary arrangements for your trip and your stay in Wilmington.

We hope that we can look forward to seeing you and hearing you speak.

Sincerely yours,

Eugene H. Man  
Vice President

des

[ans 8/11/58]

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August 4, 1958

Professor Norbert Wiener  
South Tamworth  
New Hampshire

Dear Professor Wiener:

I hope that you had a successful trip to Europe. You remember when you discussed Fourier problems with me during the summer of 1941. At that time you stated and then outlined the proof for the optimum filter for an optical aperture, such that the normalized second moment of the power distribution in the diffraction pattern would be a minimum. Your solutions were:

1. For a line source or single slit, the aperture amplitude should be

$$f(x) = \cos x,$$

with the edges of the aperture at the first zeros of  $\cos x$ .

2. For a circular aperture, the aperture amplitude should be

$$f(r) = J_0(r)$$

with the circular boundary of the aperture at the first zero of the Bessel function

$$J_0(r)$$

I have on occasion quoted these results of yours and now have one letter from England and one from the Midwest asking for references to your proof. Did you ever publish the proofs, and if so, what is the reference?

I would like to take this opportunity to again thank you for the



Professor Norbert Wiener

-2-

August 4, 1958

time you spent with me that summer. The insight that you gave me into Fourier methods has been of continuing help in my research.

Mrs. Spencer and I both wish to be remembered to Mrs. Wiener. Our daughter Barbara lives in California and has two children. Our son, Dana gets out of the army in September in time to go back and finish his last year of college.

Sincerely yours,

*Roy C. Spencer*

Dr. Roy C. Spencer  
Senior Engineering Specialist  
Missile Systems Laboratory

RCS/ry

545 Beach 133 Street

Rockaway 94, N.Y.

August 6, 1958

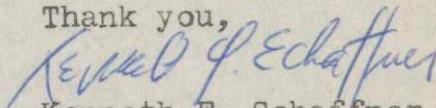
Dear Dr. Wiener,

I am a pre-engineering student at Brooklyn College, N.Y. , and am interested in working in the automation field, particularly in the control-communication end. I would also like to do research in the similarities and differences between the human and the machine, and apply, if possible, the facts gathered from such studies to constructing ( planning ) machines with faculties and abilities approximating those of human beings.

I have, however, a problem which resolves into the question: what does one study to study Cybernetics? I don't know of any particular course which would adequately prepare me for the work I wish to do; I can only guess that I should aim at a B.S. in Electronics or Electrical engineering, and attempt to minor in psychology, neurology, physiology, semantics, and even philosophy.

Do you know of any college which offers courses in Cybernetics, and if not, will you please advise me what program to study in college to give me a good background for the study of control and communication in the human and the machine.

Thank you,

  
Kenneth F. Schaffner

[ms 8/15/58]

August 6, 1958

Mr. Granville D. Davis  
Executive Director  
Memphis Adult Education Center  
2000 North Parkway  
Memphis 12, Tennessee

Dear Mr. Davis:

I am afraid that I am resolutely turning down all requests for public lectures in the future. I find that a man of my age has only a limited amount of energy and that if he wishes to conserve this for the purposes that are really important to him, he must cease to divert it into non-essential activities. I also find that a rule of this sort cannot be half maintained, but that one must either definitely refuse all outside lecturing or be prepared to have it encroach on one's scientific work. I am sure you will understand this explanation of why I must turn down your very flattering invitation.

Sincerely yours,

Norbert Wiener

NW:jc.

August 6, 1958

Dr. Otto Glasser  
Head, Biophysics  
MEDICAL PHYSICS  
2040 East 93rd Street  
Cleveland 6, Ohio

Dear Dr. Glasser:

It is my impression that the article I had submitted for MEDICAL PHYSICS had been rejected. Therefore, I doubt if the letter you sent me on June 27 is relevant.

Sincerely yours,

Norbert Wiener

NW:jc

[ans 8/11/58]

August 6, 1958

Mr. Ulf Grenander  
Brown University  
Providence 12, Rhode Island

Dear Mr. Grenander:

I have been out of the country and I have  
come back to find your letter of July 30 on my desk.  
I assume Mr. Masani has taken care of the matter.

Sincerely yours,

Norbert Wiener

NW:jc

August 6, 1958

Franz Herrmann, M. D.  
Rudolf's Virchow Medical Society  
c/o New York Skin and Cancer Unit  
University Hospital  
330 Second Avenue  
New York 3, New York

Dear Dr. Herrmann:

I have returned to New Hampshire from Italy to find a record of your telephone call of July 14 and also your letter of July 25. I am going over the manuscript and shall send it as soon as I have a clean copy.

Sincerely yours,

Norbert Wiener

NW:jc

August 6, 1958

Hospital Service Department  
Blue Cross--Blue Shield  
38 Chauncy Street  
Boston 6, Massachusetts

Gentlemen:

Re: Certificate Number 20680

Your letter of July 15 arrived while I was abroad. Before I left I checked with the Homborg Infirmary at the Massachusetts Institute of Technology and was informed that they would take care of all necessary correspondence with you. Enclosed is the questionnaire which you have asked me to complete.

The facts of my injury are as follows: on April 29 I twisted my side as I got out of my car. I went to the Homborg Infirmary. Here I was told that the injury was a strained muscle and I was given sedation. I later consulted my family doctor, Dr. Lloyd Potter, and he confirmed the Infirmary's diagnosis and also gave me sedation.

On May third I went to Baltimore. In Baltimore I developed sciatica, and when I returned to the Homborg Infirmary, I was told to remain in the Infirmary so that the rest would effect cure.

If I can be of further assistance, please let me know.

Sincerely yours,

Norbert Wiener

NW:jc

Enclosure

August 6, 1958

Mr. Evan O. Kane, Chairman  
FAS Committee for a  
United Nations University  
18 Sherwood Lane  
Burnt Hills, New York

Dear Mr. Kane:

As to your idea concerning the founding of a United Nations University, I am much in favor of it, with, however, certain reservations as to its possible dangers. Science should be international, completely international. I have never found any great difficulties in the collaboration of scientists from different countries. The natural institution to sponsor this university would be the United Nations. However, I am very much afraid that the United Nations has allowed itself to become, on more than one occasion, the tool for the political manipulation of one or more of its members. If a United Nations University should similarly be used as the lever to manipulate international thought into safe lines, it would defeat its own purpose. I think it is very important that the territory on which such a university is founded should be one subject to a minimum of specific national pressures. Ideally it should be upon an island which is subject to complete internationalization. A good climate, bracing enough to encourage active work, and yet mild enough to allow for all-year-round activity is highly desirable. The place should be near enough to other places in which there is much intellectual activity to make transportation not too difficult, but sufficiently far away not to be completely overshadowed by them. There may be no such place, but on the whole I am inclined to think that one could be found. Perhaps in the Antilles, perhaps in some island off the European coast, such as one of the Balearic Islands.

I do not think the language problem is by any means unsolvable. Any man able to do active academic work should not find it too difficult to discover a common language with almost any one of his colleagues, or at least to learn one. The Swiss Universities, and particularly the Zurich Institute of Technology, do pretty well under at least partial interlingual conditions.

Sincerely yours,

Norbert Wiener

NW:jc



August 6, 1958

Mr. Victor Riesel  
The Hall Syndicate, Inc.  
342 Madison Avenue  
New York 17, New York

Your letter of June 27 found me too on my way to Europe. I spent a week in Basel with scientific colleagues and then went down to Varenna on Lake Como in Italy for two weeks in a meeting on cybernetics. Then after a certain amount of family visiting, I came home and I am now on my farm in New Hampshire. I shall stay here until September when I shall be at M. I. T. If you want to see me, if you are in Boston while I am up here, you can drive up here, or see me at M. I. T. on my return.

Sincerely yours,

Norbert Wiener

NW:jc

P. S. I don't make speeches from now on. I have found it an exhausting and spiritually unprofitable undertaking.

N. W.

August 6, 1958

Dr. Bernard F. Riess  
Director, Research Department  
Postgraduate Center for Psychotherapy  
218 East 70 Street  
New York 21, New York

My dear Dr. Riess:

Many thanks for your invitation to write something for the INTERNATIONAL RESEARCH NEWSLETTER IN MENTAL HEALTH. The fact is that I am so loaded up with research problems at the present time that I must avoid all outside writing. Furthermore, I feel that I have said fundamentally what I have got to say in your field, and I don't want to milk the old cow dry.

Sincerely yours,

Norbert Wiener

NW:jc

August 6, 1958

Mr. Porter Sargent  
11 Beacon Street  
Boston, Massachusetts

My dear Mr. Sargent:

I am afraid that increasing pressure of work forces me to draw in my horns so that I cannot undertake to look over proof sheets for authors or publishers with whom my work does not bring me into a position of direct responsibility. I am very much complimented by your thinking of sending these proof sheets to me, but you will see that if I wish to do any further creative work there is a stage at which I must refuse all extraneous commitments.

Sincerely yours,

Herbert Wiener

NW:jc

August 6, 1958

Mr. Aser Rothstein  
Secretary-Treasurer  
Society of Sigma Xi  
The University of Rochester  
Rochester 20, New York

Dear Mr. Rothstein:

I am afraid that general lectures, even Sigma Xi lectures, are off my schedule from now on. I find that with respect to lecturing the policy of alcoholics anonymous is the only one--not one drink. Frankly, lecturing has piled up on me and if I want to do further creative work I must resolutely abstain.

Sincerely yours,

Herbert Wiener

NW:jc

August 6, 1958

Mr. De Witt Wallace  
Reader's Digest  
Pleasantville, New York

My dear Mr. Wallace:

The anecdote you tell about me may well  
be true, at least I have heard it told around M. I. T.

Thanks for the copy of the article.

Sincerely yours,

Norbert Wiener

NW:jc

August 6, 1958

Mr. David C. Whitney  
Managing Editor  
THE WORLD BOOK ENCYCLOPEDIA  
Merchandise Mart Plaza  
Chicago 54, Illinois

My dear Mr. Whitney:

I am afraid that I have found it necessary not to engage in any sort of encyclopedic writing or in fact in any work outside of my teaching at M. I. T. and my scientific investigations. I have had to adopt this policy to protect the possibility of my further creative work. I am sure you will understand why I cannot write anything for THE WORLD BOOK ENCYCLOPEDIA.

Sincerely yours,

Herbert Wiener

NW:jc

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August 8, 1958

Mr. Norbert Wiener  
Massachusetts Institute of Technology  
Cambridge 39, Massachusetts

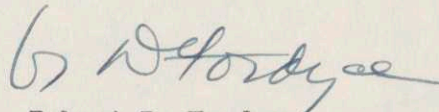
Dear Mr. Wiener:

As consultants to management, we are retained by our client companies to find specific personnel for openings in their firms. Two such positions are described in the enclosed Specifications Nos. 861 and 880.

Because of your present activities, we are writing you with the thought that you may know of individuals who might be interested in and qualified for these openings. Any nominations you may care to offer will be greatly appreciated and, if you so indicate, will be held in strict confidence. As our fees are paid entirely by our client companies, an indication of interest by a prospective candidate entails no obligation.

We look forward to hearing from you and thank you in advance for your interest and cooperation.

Sincerely yours,

  
Robert D. Fordyce

RDF:ah  
Enclosures - 861 and 880

7980 8/13/58

The Company                    A major corporation. One of the leaders in its field in the design, development and manufacture of specialized electro-mechanical systems marketed to the government and many large industrial, engineering and commercial organizations.

Location                        Eastern Seaboard or Middle West.

Duties                            The successful candidate will be in complete charge of a development laboratory of about 200 employees. He will report to a vice president of the corporation.

Background                    Extensive administrative duties in engineering and development work in the electronic or electromechanical fields. Emphasis on systems as contrasted to components; digital computer background desirable. Advanced degree in engineering, physics or mathematics desirable but not mandatory.

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Compensation                    Up to \$25,000 including bonus, exceptionally good pension and customary fringe benefits.

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Location Eastern United States.

Duties Design work on punched card equipment.

Background Extensive work in the design of high speed, high precision machinery, preference being given to that listed under "duties" above.

Experience At least ten years experience in mechanical design work.

Compensation Salary up to \$20,000 depending on experience and past earnings. Pension and customary fringe benefits.

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NEW YORK 17, N. Y.

OXFORD 7-3730

41 Ditton Avenue,  
Auckland Park,  
Johannesburg,  
South Africa  
9<sup>th</sup> August, 1958.

Dear Professor Wiener,

I have not yet read a great deal of your autobiography, but I have read sufficient to have gleaned some fruit from your erudite pen.

In case it should affect the passage of humanity, let me say that I am a student of physics with a great deal of aspiration if nothing else: repeated academic failure has made it extremely difficult for me to be hopeful of ever rising to theoretical physics, both because I have lost confidence in my ability (and I certainly lack the makings of a mathematician — a constant encumbrance to my happiness) and, more important, because the ability to create for myself the freedom of mind, so essential to a student, evades me completely.

At the moment, the world is to me an endless desert in which I find

occasionally an oasis to quench the frightful loneliness which pervades my whole existence. This comes usually through the arts, in particular through music. You will appreciate that in this respect your writing holds some importance for me.

This "loneliness" of which I speak is probably directly connected to the fact that the entire family from which I spring has long since crumbled and fallen by the way-side, but I sense something deeper than mere loneliness in the physical sense { In this respect, incidentally, I refuse to believe that a man can gain a great measure of consolation through a woman, even though I have no experience in the matter whatsoever. My observations have led me to view the fair sex with a great mistrust in respect to friendship, but to award its members the highest honours in the science of social-climbing which has become the key-note of our "wonderful twentieth century" }

I am singularly disappointed in the whole structure of the world's social systems and the state of man's intellect in general. Technology is a simple matter, no matter if one stands on the precincts of it.

What is man? This is a far more important matter today, for the plebians of learning are craving for an answer. The masses will not always be satisfied with the irrationalism of moralistic religions: learning is already a skyscraper which must for ever stand in the quagmire of human emotions, and the girders of religion which brace its foundations are to be viewed with doubt in this age.

I will probably cross swords with you and even annoy you by saying that I do not believe that man can think in the creative sense - There is too much incongruity in the world - in politics, in art even amongst intellectuals. Both through experience and reading I have become an exponent of the theory of Behaviorism: there is no good reason to suppose that thinking is anything other than a permutation of knowledge gained solely because our world is not in a state of thermo-dynamic equilibrium.

In short, I see man's knowledge of himself in a state of chaos and his knowledge of the physical world not well advanced at all.

In your book, you mention ~~your~~ your feelings towards psychology. When I was indoctrinated with Christianity at the age of 17 I found that it fell short of the mark in answering my needs. { I would never have trusted such dogma, anyway, had I not been exposed to the "care" of a despot. } I turned to psychoanalysis in earnest. At the age of 18, quite disorientated, I spent a considerable time consulting an eminent psychiatrist and two experienced psychologists. At the end of the period the psychiatrist was quite disorientated (but still sent his account) while the psychologists maintained that my problems lay beyond the pale of their "science".

I am not an authority on the subject, ~~but~~ but in three years I have come to view psychology in the same manner as I do most other things, (with the notable exception of mathematics). I think that Freud took a step in the right direction, even though he did have his eyes shut.

Yours sincerely,  
Greville Nelson

[over 8/30/58]

*wait for city*

CLEVELAND CLINIC

2020 EAST 93<sup>RD</sup> STREET

CLEVELAND 6, OHIO

DEPARTMENT OF BIOPHYSICS

11 August, 1958

Dr. Norbert Wiener  
South Tamworth  
New Hampshire

Dear Dr. Wiener:

Many thanks for your letter of 6 August, 1958. I am greatly puzzled by its contents because I never received a manuscript from you and consequently could not have rejected it nor can I return it. I also did not get an earlier note from you asking for return of your manuscript, as you indicate in your letter. The only note which I had from you is dated 10 March, 1958, in which you stated: "I shall be glad to send you an article for Medical Physics as soon as I have written up the material".

I am terribly sorry that something should have happened to your manuscript and I sincerely hope that the mystery will be solved and that we still will be favored by a contribution from you for our third volume.

r /  
r

Sincerely yours,

*Otto Glasser*  
Otto Glasser

C O P Y

11 August, 1958

Dr. Norbert Wiener  
South Tamworth  
New Hampshire

Dear Dr. Wiener:

Many thanks for your letter of 6 August, 1958. I am greatly puzzled by its contents because I never received a manuscript from you and consequently could not have rejected it nor can I return it. I also did not get an earlier note from you asking for return of your manuscript, as you indicate in your letter. The only note which I had from you is dated 10 March, 1958, in which you stated: "I shall be glad to send you an article for Medical Physics as soon as I have written up the material".

I am terribly sorry that something should have happened to your manuscript and I sincerely hope that the mystery will be solved and that we still will be favored by a contribution from you for our third volume.

Sincerely yours,

Otto Glasser

v /  
y

August 11, 1958

Mr. R. W. Benoliel  
Technical Liaison  
General Electric Company  
Hanford Laboratories Operation  
Richland, Washington

My dear Mr. Benoliel:

I am highly honored by your request for a lecture from me during the next academic year. However, I regret to say that I am no longer undertaking such lectures. I find that the demands of my own research work are incompatible with my dissipating my energies in the fatigue of long trips, in the lectures themselves and in the many further activities such as preparing papers, visiting industrial plants, advising other scientists, and so on, which have become part of what is expected from a lecturer.

Regretfully yours,

Norbert Wiener

NW:jc



August 11, 1958

Mr. Eugene H. Man  
Vice President  
The Scientific Research Society of America  
Wilmington, Delaware

My dear Mr. Man:

I am highly honored by your request for a lecture from me during the next academic year. However, I regret to say that I am no longer undertaking such lectures. I find that the demands of my own research work are incompatible with my dissipating my energies in the fatigue of long trips, in the lectures themselves and in the many further activities such as preparing papers, visiting industrial plants, advising other scientists, and so on, which have become part of what is expected from a lecturer.

Regretfully yours,

Norbert Wiener

NW:jc

# PERSPECTIVES IN BIOLOGY AND MEDICINE

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\*

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ELIZABETH MUNGER

August 13, 1958

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Dr. Norbert Wiener  
Department of Mathematics  
Massachusetts Institute of Technology  
Cambridge 39, Massachusetts

Dear Dr. Wiener:

We are sending to you separately a copy of the Summer number of PERSPECTIVES IN BIOLOGY AND MEDICINE, with the thought that you will enjoy the autobiographic sketch by George von Hevesy.

Sincerely yours,

*Dwight J. Ingle*  
Dwight J. Ingle

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August 13, 1958

Professor Norbert Wiener  
% Mr. Lynwood Bryant, Director  
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Massachusetts Institute of Technology  
Cambridge 39, Massachusetts

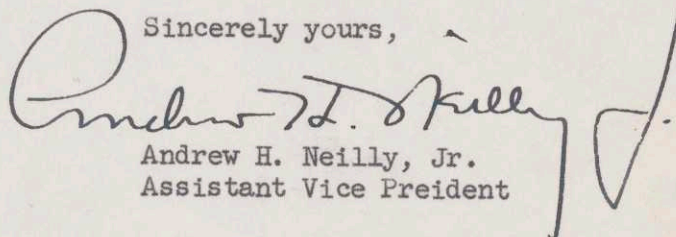
Dear Professor Wiener:

Your manuscript is now in production and we are in the process of planning the promotional campaign. We are enclosing our "Twenty-One Questions", which you will remember from your previous book.

As we have the biographical information with which you provided us earlier, the questions relative to this may be ignored, unless there are recent changes which you think we should have. The questions which now most concern us are those dealing with the contents of your new book and its prospective market, i.e., questions 4 to 10. Particularly important for our field representatives, is the analysis of current books in the field which will compete with yours. A careful and detailed reply to Question 11 is, therefore, of prime importance.

As you know from experience, complete and accurate data from the author is one of our most effective promotional tools. We shall be grateful for your early attention to this material.

Sincerely yours,



Andrew H. Neilly, Jr.  
Assistant Vice President

AHN:da

C O P Y

Please fill out and return to: John Wiley & Sons  
440 Fourth Avenue  
New York 16, N. Y.

1. Date questionnaire was completed: Monday, August 18, 1958

Title of book: Random Functions in Non-Linear Processes

Subtitle: none

Edition: first

Author(s): Norbert Wiener

Position and Affiliation: Professor of Mathematics, Massachusetts  
Institute of Technology

2. Your academic and professional record (include Honorary Degrees)

(This is included in the biographical information sent earlier.)

Positions since graduation

(This is also included in the biographical information.)

3. (a) What facts about your experience will interest prospective readers of your book (honors, inventions, discoveries, offices in scientific societies, etc.)?

(Biographical information.)

- (b) Other biographical information, for publicity releases to newspapers, fraternal, and alumni magazines, including foreign outlets.

(Biographical information.)

4. What professions or groups of persons here and abroad will be interested in your book? Please star major fields of interest.

Electrical engineers, physicists, bio-physicists, physiologists, information theory workers, psychologists, cyberneticists, workers in machine computation.

The book concerns the application of random theory to non-linear processes. Non-linear processes are much more general in the world than linear processes and for many purposes the non-linearity of the processes is quite fundamental to its mathematical study. Non-linear processes come up in electrical circuit theory where such apparatus as rectifiers, amplitude limiters and the like are non-linear. Many such devices are fundamental in communication engineering. The biological non-linear processes play an important role in the study of self-organizing systems and this is brought out in the book. A particular example of such systems is found in the waves studied by electroencephalographers. In communication theory coding processes are generally essentially non-linear and the coding of random messages is an important part of coding theory. This is also discussed explicitly in the book. Random processes in space as well as in time come into the study of statistical mechanics and at least two chapters of the book are devoted to these, opening new opportunities in gas and plasma theory. The study of statistical field theory suggested by this has close connections with quantum field theory. Some of the relations of the ideas of the book with quantum theories are touched upon explicitly.

Dr. Grey Walter of the Burden Neurological Institute, Bristol, England  
Professor Cajeniello of the University of Naples.

5. If your book is intended for textbook use, please give the following general information:

While the lectures constituting the book were given in a special course for advanced students at M. I. T., it is a little premature to speak of the book as a textbook as yet. It is opening a field in which courses will unquestionably be given, but the initiative for these courses will have to come from the specialists at the different universities.

6. For what courses would it be valuable as supplementary?

For courses in electroencephalography, advanced courses in information theory, courses on circuit design and courses on quantum field theory and of the statistical mechanics of gases and plasma.

7. Who are considered leaders in the field, from whom we might solicit endorsements of your book after publication? Foreign leaders should also be considered.

Professor Shannon	Massachusetts Institute of Technology
Professor Lee	Massachusetts Institute of Technology
Professor Bose	Massachusetts Institute of Technology
Mr. McMillen	Bell Telephone Laboratories
Mr. Slepian	Bell Telephone Laboratories
Mr. Watanabe	International Business Machines
Professor Brillouin	International Business Machines
Professor le Corbellier	Harvard School of Engineering
Professor Walter Rosenblith	Massachusetts Institute of Technology
Professor Arturo Rosenbluth	Instituto Nacional de Cardiologia, Mexico City
Professor Baltazar Vanderpol	formerly of the Philipps Co., in the Netherlands
Professor Gabor of the Imperial College of Science and Technology in London	
Professor Monnier of the Department of Physiology at the University of Basel	

8. List periodicals, domestic and foreign, which might review the book.

SCIENCE, NATURE, PROCEEDINGS OF THE INSTITUTE OF RADIO ENGINEERS,  
PHYSICAL REVIEW, SCIENTIA, IL NUOVO CIMENTO in Italy, JOURNAL OF  
MEDICAL PHYSICS. Mathematical Reviews.



9. What features set your book apart from all other books in the field?

While there is already a considerable interest in the general field as is shown for example in a recent book by Pugachov in Russia, there is no book anywhere which gives a comprehensive view of the field and in particular no book which simultaneously opens up the physical, the pure mathematical, the electrical engineering and the physiological applications. From this point of view the book is completely new and has no competitor.

10. What specific shortcomings in the literature does your book overcome?

See the last.

11. What books compete with or are similar to yours?

Also see the last comment.

12. If there are other features of your book which have not been covered in Questions 10 and 11, please list them here.

- 13. What other features of your book could our travelers emphasize?

The fact that it is opening up a new field and that it is bound to lead to much further work by other writers.

- 14. Recommend specific illustrations from your book which we could use in advertising to stimulate interest in prospective buyers.

I haven't the illustrations before me, and I do not believe that they will be particularly valuable to your sales people as such.

- 15. Please send us a recent photography of yourself that we may use in advertising and publicity.

16. If your book is a new edition: **It is a new book altogether.**

17. If you have changed your viewpoint or approach to the subject in this new edition:

18. Please enclose a copy of your preface--tentative or final--and the final table of contents, if these have not already been submitted.

They have been submitted.

19. What kind of practical problem in the field will your book help the reader to solve? "Case histories" can be very valuable. Can you furnish such material?

Design and measure of non-linear circuits, analysis of brain waves, discussion of non-linear resonance problems.

20. Have we omitted any points which you think would be of value in advertising and selling your book? If so, we shall appreciate your comments.

Not as I can see at present, however, I shall be glad to take up the matter personally with representatives of Wiley.

21. We assume you have our catalog. What is your book's proper classification in the catalog?

Cybernetics.

August 13, 1958

Mr. Robert D. Fordyce  
Ward Howell Associates, Inc.  
122 East 42nd Street  
New York 17, New York

Dear Mr. Fordyce:

This is in reply to your note of August 8 with respect to your job specifications No. 861 and 880.

As to No. 880, I am afraid I am unable to name a candidate for you, as I have very little contact with men working specifically on punched-card equipment.

As to Specification No. 861 I think I can name a man who fits all your requirements very precisely. He is Mr. Gordon Raisbeck, 42 Madisonville Road, Basking Ridge, New Jersey. He is an engineer with the Bell Telephone Laboratories where he has been for nearly ten years and he has at least four years of engineering experience in addition. He is a research engineer in a supervisory position engaged in electronic work concerning digital computers and other related subjects. He has an M. I. T. doctorate in mathematics. In order that there may be no misunderstanding, I should like to say that Mr. Raisbeck is my son-in-law. This, however, is not the reason for my nomination of him. I have cudgled my brains to find other possible candidates for the job and the men of whom I can think are either already established men with positions quite equal to the one you mention, or are young men without the requisite experience, and in most cases stronger on the theoretical than on the administrative end, and more interested in research than in development. Mr. Raisbeck is a young but experienced man, is energetic and both willing and able to assume authority. He has a very pleasant personality and works well with other people. He has a very good head on his shoulders and is thoroughly in touch with the latest developments in the art. I think he is an excellent bet.

Sincerely yours,

Horbert Wiener

NW:jc

[ans 8/13/58]



August 13, 1958

Mr. William B. Terry, Jr., President  
Hudson Valley Aircraft Company, Incorporated  
P. O. Box 320  
Middletown, New York

Dear Mr. Terry:

Many thanks for your letter and the little book.  
I am now thoroughly recovered from my recent illness,  
going strong and hard at work.

Sincerely yours,

Norbert Wiener

NW:jc



WAYNE STATE UNIVERSITY

DETROIT 2, MICHIGAN

OFFICE OF THE VICE PRESIDENT  
FOR ACADEMIC ADMINISTRATION

August 14, 1958

Professor Norbert Wiener  
Massachusetts Institute of Technology  
Cambridge, Massachusetts

Dear Professor Wiener:

Now that summer vacations are almost over and before your campus is plunged into the new academic year I am sending you a scrap book of the symposium on The College Professor. The sight of it brings pleasant memories to me. Never before, to my knowledge, has the student press at Wayne published in full such substantial papers. It is the best evidence I can offer that you made a significant contribution to the intellectual life of this campus.

Sincerely,

James P. McCormick  
Assistant to the Vice President  
Academic Administration

JPM:jg  
Enc.

[ans 8/22/58]

South Tamworth  
New Hampshire  
August 14, 1958

Mr. D. D. Kosambi  
P. O. Deccan Gymkhana  
Poona 4, India

Dear Baba:

I have just come back from a trip to a scientific meeting in Italy which was very satisfactory and very tiring, so now for the first time I have the opportunity to look over your work. It seems to me that the best way to approach it is not simply to follow out your own proofs, because if I do so and you have fallen into any error, it will be most natural for me to fall into the same one. The best thing for me to do is to go through the different stages of your argument in separate blocks and see if at each stage the properties of the prime numbers of which you actually make use are sufficient to prove your theorem.

Let me say that I have convinced myself once for all that the convergence of your series one for every real greater than one-half is in fact equivalent to the Hofermann hypothesis. Let us then forget the second part of your paper and proceed to the first which is your condition about one.

For the present I do not wish to discuss your probabilistic argument. Probabilistic arguments are most useful and powerful, but it is manifest to me that everything that can be proved by means of them can be converted into a strictly classical analytic form and that it is possible to determine without any reference to probability whether the properties of primes of which you make use are sufficient to prove your result. Let us then go back to one and assume that the numbers  $p$  are an arbitrary sequence of numbers with only those properties which you actually invoke in your proof. As far as I can see, these properties are that the numbers  $p$  are to be found among the integers and that the number of  $p$ 's less than  $x$  is asymptotically  $x$  times the logarithm of  $x$ . On scanning your paper I can see no other properties of the numbers  $p$  which is invoked. Therefore the question is whether these properties alone are enough to establish the convergence of one under the condition given.

I have looked over this theorem and I am convinced that these conditions alone are not enough. It is easy to choose a sequence of values of  $p$ , each differing from  $n \log n$  by a quantity of the order  $n^\epsilon$  where  $\epsilon$  is slightly greater than one-half, where the  $p$ 's are all integers and where your convergence condition is not fulfilled. Try it yourself and you will see.

Perhaps I may be wrong in this. Perhaps, too, I may be wrong in the assumption that you make use of no other properties of the primes. I hope I am wrong. I should like to hear from you exactly what properties of the primes are needed for your proof, then I will be in a position to go over it more intelligently, than I ~~will be in a position~~

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August 15, 1958

Professor Norbert Wiener  
Department of Mathematics  
Massachusetts Institute of Technology  
Cambridge 39, Massachusetts

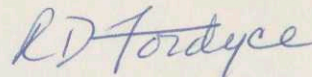
Dear Professor Wiener:

Thank you very much for your letter of August 13th in connection with our assignments 861 and 880.

I am most appreciative of your efforts in our behalf and I am of course grateful to you for nominating Mr. Gordon Raisbeck as a possible candidate for opening 861. We are contacting Mr. Raisbeck today.

Again, many thanks for your interest and cooperation.

Sincerely yours,



Robert D. Fordyce

RDF:ah

Lund, Sweden, August 15, 1958

Dear Prof. Wiener,

Dr. Margaret Mead suggests that I send to you a copy of my 'Epistemology of Intercultural Understanding; a Study in Behavioral and Communicational Epistemology; Rediscovery of Philosophy as an open Meta-Science of Interdisciplinary Cross-Induction' (Revised, reorganized and augmented, April 1958)

I suppose that you have no time for reading my paper. However, if you would care to read it, I should be happy to mail a copy to you. In case you are interested in taking a preliminary look at the paper, a circulation copy is available through Dr. Peter Elias of Research Laboratory of Electronics, M.I.T., and Prof. William N. Locke of Modern Languages, M.I.T.

Recently I have published an extensive neurological bibliography on the visual perception of patterns, mostly taken from clinical and experimental studies, in the INDEPENDENT SCHOOL BULLETIN, April 1958, (the Secondary Education Board), also reprinted in Orton Bulletin.

Sincerely yours, *Margaret Maryama*  
Margoroh Maryama

M. Maruyama, Rm. 18, Tomegapsgården, Lund, Sweden, Aug. 15, 58.

BREMEN

CAMBRIDGE MALE

8-PM

1958

MASS.

Sverige

5 Öre

20 Öre

SVERIGE

58 \*  
\* P

FLYPOST  
PARAVION

Prof. Norbert Wiener  
~~Dept. of Mathematics~~  
~~Massachusetts Institute of~~  
Technology  
~~Cambridge, Massachusetts~~

U.S.A.

South Tamworth  
New Hampshire

South Tamworth  
New Hampshire  
August 15, 1958

Mr. Ali İrtem  
Posta Kutusu 670  
Ankara, Turkey

Dear Mr. İrtem:

I suggest that you write to the new Association Internationale de Cybernétique about their new periodical "Cybernetica." My main works on cybernetics are the book of that name which has appeared under the imprint of Hermann and Company, Paris, The Human Use of Human Beings, which you can get in a cheap edition from the publisher Doubleday, New York, and Extrapolation and Interpolation and Smoothing of Stationary Time Series with Engineering Applications with Wiley and Sons, New York.

My work on prediction and wave filters is largely in this book and I have some new material on this in a book coming out by Wiley entitled Random Functions in Non-linear Processes. As to question No. 4, I shall take your letter over to Dr. Northrup, who is a summer neighbor of mine, and request him to write to you directly.

Sincerely yours,

Norbert Wiener

NW:jc

[ans 12/14/58]

August 15, 1958

Mr. P. Masani  
Department of Mathematics  
The University of Chicago  
Chicago 37, Illinois

Dear Masani:

I have been frightfully busy on the trip and I am just now catching my breath. I got your letter on the way back, and I shall look over your paper. Meanwhile, let me know if you can manage to see us any time in August or early September on the farm. I shall give you full time for clearing up all issues. I think you will like it up here. It is generally cool and quite a relief in hot weather.

Sincerely yours,

Norbert Wiener

NW:jc



August 15, 1958

Mr. Kenneth F. Schaffner  
545 Beach 133 Street  
Rockaway 94, New York

Dear Mr. Schaffner:

What does one study to go into cybernetics? From my point of view, the best training is not in cybernetics itself, but rather a good grounding in mathematics, mathematical physics and either electrical engineering or physiology or linguistics, or perhaps in all of these. Your suggestions, therefore, as to the degree you should try for strikes me as entirely right.

The real specialization in cybernetics should come with your graduate work. There are several places offering training in cybernetics or in closely-related fields, but I think it is the Massachusetts Institute of Technology in which the electrical engineering and related departments are most imbued with the spirit of the subject. I can assure you that if you are able to come here as a graduate student and if you have done sufficiently well in your previous work, we shall be able to orient you in a group of young men already engaged in serious cybernetic work for the doctor's degree.

Sincerely yours,

Norbert Wiener

NW:jc

August 15, 1958

Dr. Roy C. Spencer  
Senior Engineering Specialist  
Missile Systems Laboratory  
Sylvania Electronic Systems  
100 First Avenue  
Waltham 54, Massachusetts

Dear Dr. Spencer:

It is good to hear from you again and to learn that things are going so well with your family. I think the criterion which I used for the slit and the circular aperture were that the integral of the square of the light intensity with respect to the angle of defraction should have a minimum value when the integral of the first power was given. I should try to work it up again from first principles, but I think that you will be able to check with me by your own work. If I prove to have been wrong, let me know.

Sincerely yours,

Norbert Wiener

NW:jc

## UNIVERSITY OF CALIFORNIA

August 19, 1958

DEPARTMENT OF MATHEMATICS  
LOS ANGELES 24, CALIFORNIA

Dear Professor Wiener

On July 21 I mailed you a copy of the paper for publication in the volume which Grenander intends to bring out. This was sent to M.I.T., and I hope you have received it.

Since arriving here I have received a letter from Grenander, a copy of which he has sent to you. He seems to approve of the Ms. But as I had written to him that you had not ~~to~~ seen the Ms., and that he should look upon it as tentative, he is not sending it to the printer until he hears from us. If you approve of the Ms., would you please inform him to go ahead. If you have changes to suggest please also let me know, c/o. M.I.T. (as I will be soon returning).

Before coming here I saw Kallianpur at East Lansing. He is having a little trouble finalizing your joint paper on Non-linear prediction. The result

$$f_0 = E(x | \mathcal{F}(g_0, g_{-1}, \dots) \otimes \mathcal{F}_{-\infty})$$

where the  $g$ 's are your independent and uniformly distributed innovations<sup>#</sup> and  $\mathcal{F}_{-\infty}$  = the remote past, seems to be in doubt. Rosenblatt had sent me an example when I was in Princeton (which I promptly passed on to Kallianpur and Akutowicz) which shows

<sup>#</sup> Incidentally, Kallianpur showed me a new derivation for the existence of the  $g$ 's which is quite O.K.

UNIVERSITY OF CALIFORNIA

DEPARTMENT OF MATHEMATICS  
LOS ANGELES 24, CALIFORNIA

that the result is wrong ~~unless~~ <sup>if</sup> the distribution functions are not continuous and strictly increasing. The trouble is that in your proofs (both Kallianpur and Ahlfowicz's) these hypotheses are not used. My feeling is that the result is O.K., but that a new proof is needed.

I am now working on the other paper we decided to write, viz. on bivariate processes. Incidentally, the condition for factorizability of  $F' = \begin{bmatrix} F_{11} & F_{12} \\ F_{21} & F_{22} \end{bmatrix}$  when

$\Delta F' = 0$  a.e. is that for  $i=1$  or  $2$

$$\log F_{ii} \in L_1 \quad \& \quad F_{ij}/F_{ii} = \frac{P_1}{P_2}, \text{ where } P_k \in L_{\delta}^{0+},$$

any  $\delta > 0$ , and not necessarily  $\delta = 2$ . I have succeeded in making some other improvements, and in proving a few new results. But many gaps remain, e.g. when  $F$  is not obly continuous and  $\Delta F' > 0$  on a set of positive measure.

On my way here I spent a day at Santa Fe, and another at the Grand Canyon. Quite interesting. I will ~~return~~ <sup>begin my return</sup> to Cambridge end of this week, with stops at San Francisco and Boulder. If you are not around, I'll give you a ring from Cambridge. I'll take off for England on September 4.

With best wishes to you and Mrs. Wiener,

Sincerely yours  
Peri Kresner

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ASST. VICE-PRESIDENT

August 19, 1958

Professor Norbert Wiener  
Department of Mathematics  
Massachusetts Institute of Technology  
Cambridge 39, Massachusetts

Dear Professor Wiener:

J. S. Bendat's PRINCIPLES AND APPLICATIONS OF RANDOM NOISE THEORY has just been published and a copy is on its way to you with the author's compliments and ours.

We are aware of your interest in this field and feel that this book will prove useful to you. Your comments would be most welcome.

Sincerely yours,

*W. G. Suter*

W. G. Suter  
Manager, College Sales

WGS:BB

revised papers sent  
to Dr Solomon, Oct. 10, 1958

HARVARD MEDICAL SCHOOL  
DEPARTMENT OF PSYCHIATRY

PHILIP SOLOMON, M. D.  
*Asst. Clinical Professor of Psychiatry*  
*Physician-in-Chief*  
*Psychiatry Service*

BOSTON CITY HOSPITAL  
818 Harrison Avenue  
Boston 18, Massachusetts

August 21, 1958.

Norbert Wiener, Ph.D.  
Mass. Institute of Technology  
Cambridge, Mass.

Dear Dr. Wiener,

We are returning the copy of your discussion of papers at the Symposium on Sensory Deprivation. If you wish to edit your remarks, would you please do so on the accompanying blank sheet. Because of publication deadlines it will be necessary for us to have your revised discussion no later than September 20, 1958. Please return all material to:

Dr. Philip Solomon  
Psychiatric Service  
Boston City Hospital  
745 Massachusetts Avenue,  
Boston 18, Mass.

Thank you for your cooperation.

Sincerely,

*Jack H. Mendelson*

Editorial Committee  
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P. Herbert Leiderman, M.D.  
Jack Mendelson, M.D.  
Donald Wexler, M.D.  
Philip Solomon, M.D., Chairman.

PS/11  
Encl.

Dr. Mendelson -  
Mass General Hosp.  
LA 3-8200, ext 2531

P.O. Deccan Gymkhana  
Poona 4; INDIA.  
August 22, 1958.

Dear Norbert,

Many thanks for your letter of the 14th, received last night. The Hungarian criticism (and yours) is quite correct, but I have answered it long ago, and ~~if you like~~, the revised proof (or 'proof', if you insist) can be sent to you whenever you like. The counter-example helped a great deal in removing a stupid mis-statement. The correct statement is not that the means of the relevant series are all zero, but that the series of means converges, which is all that the Kolmogoroff lemma requires. This is done as follows:

I appeal only to the principle of the sieve procedure of Eratosthenes and Viggo Bruns. First, take intervals whose images by the ~~ix~~ & ~~lix~~ transformation have fixed unit width. The law of large numbers and the prime number theorem tell us that the average over the whole line for the primes in such an interval is strictly unity. But we need the average in finite ranges. The procedure is simple enough. First, the sieve shows that the numbers of primes in such intervals - provided they do not overlap - are independent of each other over the unrestricted line. Over finite ranges, the correlation is very faint, and not positive in any case. Thus, the law of large numbers &c continues to apply. But then we are dealing with the average of a sub-sample from a population whose general mean is zero. The probability of the sample mean ~~not~~ exceeding, say,  $\log \sqrt{N}$  can be shown to be so small that the corresponding infinite product converges. Thus, if the series of means in the script you have with you diverged, we could easily prove a contradiction.

The counter-example required that primes ('primes', really) should cluster strongly, and not even the independence of the primes is enough to damage the proof. For example, if there were just one prime per unit interval, which amounts to saying that the interval between consecutive primes were exactly  $\log n$  to the major order of approximation, the theorem would be obviously true. The clustering has to be such that all the primes required by the prime number theorem for the correct average ~~are~~ should be grouped together, with a larger gap free of primes to follow. This is the main idea, and one can, naturally, relax it slightly, but not by very much. The clustering, as you will see easily, has to be such that the bunch of primes occurs, say, from  $n = m^{2+\epsilon}$ , and then a gap till ~~xxxxx~~  $n = (m+1)^{2+\epsilon}$ . That is, there would be gaps of order comparable to  $\sqrt{n}$ , or larger. For the actual primes, however, it is known without RH that the average is correct even in intervals of order  $n^{1/4}$ , for which the number of primes is asymptotic to  $n^{1/4}/\log n$ . This, so far as I can see, is not fulfilled by any of the counter-example I have seen or been able to produce.

As said above, the independence suffices for my proof, but it is founded upon the sieve method, and thus I do use essentially more than the prime-number-theorem, and more than a simple average required thereby. Indeed, the very essence of primality is used. Let me add that the procedure can be extended ~~over~~ certain types of Abelian semi-groups besides the exponents of the particular Dirichlet series for RH, but in every case, you get the equivalent

and so the average  
 $\int \pi(x) dx - 1$  is 0.

$\prod (1 - p^{-x})$



BY AIR MAIL

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To Prof. Dr. Norbert Wiener

South Tamworth, N.H.

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D. D. Kosambi  
P. O. Deccan Gymkhana  
Poona 4; INDIA.

Sender's name and address -

of the unique factorization theorem and of the sieve procedure, though the statements both of the prime number theorem and of the corresponding RH have to be modified by a trifle. As a matter of fact, I had done this in a draft paper which I suppressed just to retain the essentials of the classical RH, and stupidly omitted to utilize the sieve method in the ~~xxxx~~ second edition. The third edition <sup>now</sup> seems to correct this, but I shall know what the Erdős-Turan-Renyi combination thinks only after the Edinburgh meeting is over. Please look into the matter yourself, for the problem is too important to dismiss by a superficial counter-example that disproves what is obviously an incorrect statement not essential to the proof.

Your rustic surroundings are enviable. I do go out, whenever health permits, about the local countryside; but chronic arthritis makes ~~my own~~ hiking difficult. The demoralisation of the peasants is incredible, and both land and climate have been seriously affected by extensive deforestation. No one ever plants a tree ~~under any circumstances~~. The arthritis was extremely severe from March onwards (lack of sleep from working on RH!). Two and a half months passed in helpless agony, and I am only now pulling out of the trough sufficiently to be able to get a little relief from excruciating pain. The disease is chronic, and the roots being metabolic could not be eradicated at my age; but I do hope to ~~be~~ have less interference with my work than during the ~~last~~ 10 weeks of ~~the~~ crisis, and its long aftermath. This, by the way, accounts for - though it can never excuse - the many stupid blunders made in drafting the paper. I did correct most myself, but at least one ~~was~~ survived, as you see.

Bav wishes

Baba



August 22, 1958

Mr. James P. McCormick  
Assistant to the Vice President  
Academic Administration  
Wayne State University  
Detroit 2, Michigan

Dear Mr. McCormick:

Many thanks for the material you have sent me on the symposium on The College Professor. I had a very pleasant visit at Wayne and hope that the future may bring us together again.

Sincerely yours,

Norbert Wiener

NW:jo

Tokyo Institute of Technology  
Oh-okayama, Meguroku  
Tokyo, Japan

August 23, 1958

Professor Norbert Wiener  
Massachusetts Institute of Technology  
Cambridge 39, Mass., U.S.A.

Dear Norbert:

The IWANAMI SHOTEN of Tokyo is asking me to inform you that they have paid the royalty for your CYBERNETICS to Hermann et Cie of Paris as tabulated below:

1. 1956 7.18	\$ 119.74
2. 1957 11.27	Fr.42,065
3. 1958 4.17	Fr.25,785

1 is the amount paid in advance.

1 and 2 together cover the royalty of the first edition, 2,000 copies.

3 is the royalty of the next 500 copies.

The rates of royalty are 8% for the first 1,000 and 10% thereafter.

The IWANAMI SHOTEN is disturbed to hear that you have not received any payment. If it is true, they would be glad to get in touch with Hermann et Cie on your behalf. I shall be much obliged to you if you would clarify the matter for us.

At this moment we are hoping that you and Margaret are relaxing in New Hampshire. We regret to admit that we are mainly located within the city limits.

Sincerely,

*Shikao*

Shikao Ikehara

[ans 10/7/58]

August 23, 1958

Dear Robert:

I shall be very happy if you could give me the following reprints:

1. The prediction theory of multivariate stochastic process I and II (with P. Masani) in Acta Math.

2. On Euler's infinite products (with A. Wintner) in Am. J. of Math.

I like to show that Voronoi's remarkable relations can be explicated in the light of your Tambara's theorem. It is sad to note that Wintner passed away so soon.

Sincerely,

Shikao



# The American Society of Mechanical Engineers

TUFTS UNIVERSITY SECTION  
MEDFORD, MASSACHUSETTS

August 25, 1958

Dr. Norbert Wiener  
Department of Mathematics  
Massachusetts Institute of Technology  
Cambridge, Mass.

Dear Dr. Wiener,


To each of our monthly meetings, the Tufts University Section of the A. S. M. E. invites a guest lecturer from education or industry to speak on a topic of interest to mechanical engineering students.

Since you were so influential in the development of the science of Cybernetics, we would be very grateful if you could return to your Alma Mater and speak on your new science.

We would like to be your audience on Tuesday evening, December 9, 1958.

Please reply at your earliest convenience  
to:

Gerald S. Gordon  
35 Plowgate Road  
Chestnut Hill 67, Mass.

Sincerely,  
  
Gerald S. Gordon, Chairman,  
Tufts Univ. Section,  
A. S. M. E.

*answer in city*

2400 Water St., Apt. A  
Boulder, Colorado  
27 August 1958

Professor Norbert Wiener  
Massachusetts Institute of Technology  
Cambridge, Massachusetts

Dear Professor Wiener:

I am a graduate student at the University of Colorado working toward the degree "Master of Personnel Service." This coming fall semester I plan to write my report on human relations in automation.

I have recently read a book titled "Automation" by Frederick Pollock wherein the author has made frequent reference to your work in the field of automation. Since I am interested in collecting research data on human relations in automation, I was wondering if you could assist me by providing me with information relative to this exciting field of research. I am interested in your contributions, past and recent, and any other information in the form of bibliographies, research groups, etc. with which you are familiar.

Your kind assistance will be greatly appreciated. I will be very happy to reimburse you for any costs incurred in providing me with this research information.

Very truly yours,

*Miles F. Deeg*

Miles F. Deeg

ИЗДАТЕЛЬСТВО  
ИНОСТРАННОЙ ЛИТЕРАТУРЫ

Москва

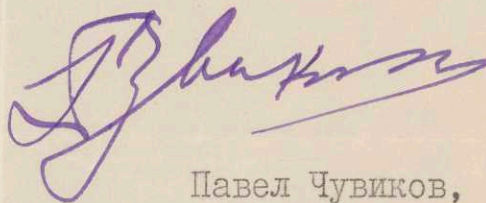
СССР

№ 1-53/1338

"30" августа 1958 года.

Глубокоуважаемый господин Норберт Винер,

Издательство иностранной литературы с удовлетворением сообщает Вам о выходе в свет в Советском Союзе Вашей книги "Кибернетика и общество" и прилагает при этом 4 авторских экземпляра русского издания.



Павел Чувиков,  
Директор Издательства.

[aug 10/8/58]

South Tamworth  
New Hampshire  
August 30, 1958

Mr. Greville Nelson  
41 Ditton Avenue  
Auckland Park,  
Johannesburg, South Africa

Dear Mr. Nelson:

I am glad you have felt at liberty to use me as an audience to get some things off your chest which have been troubling you. In this matter it is most important for you to have the opportunity to talk or to write them to someone. There is very little that I can do, but there is one piece of counsel which I can give you. That is, that you have a very definite ability to write, and that you should cultivate it. The variety of emotional experiences through which you have been may have been very hard to take, but at least they furnish a range of emotions which, combined with your ability to express them, may carry you into literature. At the present day, theoretical physics without mathematics is out; if you really are sure that mathematics is closed to you, don't try to butt your head against a stone wall. You are living in a country with enormous conflicts and offering rich material to the literary man, who in a certain sense thrives upon conflicts. Paton has made use of these already, as well as other writers, but I doubt if they have been exhausted as literary material. Why don't you have a try at it?

Sincerely yours,

Norbert Wiener

August 30, 1958

Mr. Richard Szoke  
17620 Harman Road  
New Boston, Michigan

Dear Mr. Szoke:

Unfortunately I do not know enough about the techniques of optics to answer your question. If I were trying to answer it from my own ideas, I would say that the best way of selecting small ranges in the infra red and of making an apparatus which responds to them alone, would be by color filters. There must be substances which can be so combined as to let through a narrow band in that region and be opaque to everything else.

For advice as to the more concrete possibilities I would write to Professor Arthur Hardy in the Physics Department of the Massachusetts Institute of Technology. What he doesn't know about color filters and optics isn't worth knowing.

Sincerely yours,

Norbert Wiener

NW:jc