

248

CORRESPONDENCE June 1-15, 1958

N. WIENER MC 22

Mrs. M. O. Smith
Partridge Schools
Jonesville, Va

telephoned. Here on
ONSA convention at
Sheraton Plaza.

Referred by Mr. Freeman
in Wash. Says she
has chart in connection
with work on method
of reading EEG's and
their application to the
school. - Encephalograph -
If interested contact her.
She will send chart in
Fall. [ca June 1958]

313 South Avenue
Weston, Massachusetts
June 1, 1958

Dr. Norbert Wiener
Massachusetts Institute of Technology
77 Massachusetts Avenue
Cambridge, Massachusetts

Dear Dr. Wiener:

I want to thank you for your kindness in giving me an appointment last week in the busy schedule which you carry. Your advice is valued more than I can tell you, and I feel that you have kept me from making a serious mistake.

Very truly yours,

Ether S. Ammann

(Mrs. A. F. Ammann)

BOSTON COLLEGE
COLLEGE OF ARTS AND SCIENCES
CHESTNUT HILL 67
MASSACHUSETTS

OFFICE OF SPECIAL PROGRAMS

2 June 1958

Prof. Norbert Wiener
53 Cedar Road
Belmont, Massachusetts

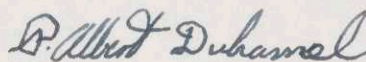
Dear Professor Wiener:

The purpose of this letter is to solicit your advice and interest in the case of Bobby Ammann described in the accompanying pages. This cannot possibly be the first imposition of this sort on your time but I can offer no better excuse for my own particular presumption than the concern for such cases expressed in your own autobiography. In addition I asked Volta Torrey if you would mind this kind of intrusion and he thought that you would not. Finally, your own forbearance while I asked simple-minded questions on a television program has perhaps made me unduly bold.

Mrs. Ammann brought Bobby to Boston College some weeks ago to ask if there was anything we could do to advance his education. The thought of assuming any share of this responsibility is frightening and the reason for this call for help.

Whatever suggestions you may care to make will be scrupulously considered. If you wished to have me, the mother or the boy call on you, I am sure it could be arranged.

Gratefully,



P. Albert Duhamel

PAD/es
Enclosure

[ans 6/14/58]

BOSTON COLLEGE
OFFICE OF TESTING SERVICES
CHESTNUT HILL 67, MASSACHUSETTS
DECATUR 2-3200

OFFICE OF THE DIRECTOR

May 28, 1958

To: Rev. William V. E. Casey, S.J., Dean, Arts and Sciences
From: John J. Walsh, O.T.S.
Re: Robert Annam (Age 11)
313 South Avenue
Weston, Massachusetts

On Saturday, May 10 Robert Annam was administered the following tests:

1. Wechsler Adult Intelligence Scale
2. Essential High School Content Battery.

In addition, he was given the Kuder Preference Record (Vocational) and the Kuder Preference Record (Personal) to complete at home and return to O.T.S. for scoring.

The results of these tests are as follows:

I. Bobby was administered the WAIS, even though this instrument is intended for use with those of age 16 and over, in the belief that a more challenging instrument such as this would provide greater motivation. Further, since the measurement of IQ at the upper range is marked by considerable lack of precision and lack of reliability (largely because people with IQ's of 140 and over are so uncommon that adequate numbers for standardisation cannot be obtained), it was judged that the WAIS scores, adjusted for the difference in Bobby's age, would serve as a better indicator of his native ability than the Wechsler Intelligence Scale for Children.

On the basis of Bobby's performance on the WAIS, the following conclusions may be drawn:

- a. His verbal IQ is at least 175
- b. His performance IQ is at least 160
- c. His full-scale IQ is at least 170.

These estimates of IQ should be considered as minimal, and his true scores may be in excess of the indicated values.

II. The Essential High School Content Battery provides a comprehensive measure of achievement in four basic areas of the high school curriculum:

- a. Mathematics
- b. Science
- c. Social Studies
- d. English.

The instrument is organized in such a manner that areas of strength and weakness may be readily identified. Bobby's performance may be summarized in terms of standard scores (Mean = 114, S.D. = 13.2), and in terms of

percentile ranks based on high school seniors enrolled in academic and scientific programs, as indicated below:

Test	Standard Score	Percentile
1. Mathematics	142	81
2. Science	155	98
3. Social Studies	139	73
4. English	134	68
Median	141	

In addition to these scores, an analysis of the errors made by Bobby may prove helpful.

Test 1: Mathematics	Items	Errors
Fundamental Skills in Computation	1-28	10
Vocabulary and Concepts	21-28	0
Understanding of Fundamentals	29-35	2
Application of Mathematics to Life Probs.	36-43	6
Interpretation of Math. Graphs	44-49	0
Knowledge of Math. Facts and Formulas	50-56	3
Interpretation of Data in Tabular Form	57-60	0
Knowledge of Important Theorems	61-66	2
Test 2: Science		
Science Information: Terminology, Concepts, Backgrounds, Scientific Evidence	1-42	6
Using the Concepts of Science	43-61	1
Using the Methods of Science	62-70	1
Test 3: Social Studies		
Contributions of Famous Americans	1-10	6
Understanding current social and political problems	11-20	3
Understanding vocabulary of social studies	21-30	0
Knowledge of civic information	31-39	5
Growth of American democracy	40-44	1
Global Geography	45-57	3
World Leaders' Contributions	58-68	5
International Relationships	69-78	4
Sequence of Events in U.S. History	79-83	1
Knowledge of World Events	84-90	3
Test 4: English		
Reading for Information	1-15	3
Vocabulary	16-30	1
Business definitions	31-42	3
Use of references	43-54	4
Literature Acquaintance	1-15	10
Language Usage	16-75	15
Capitalization and Punctuation	1-60	13
Spelling	61-120	1

Bobby's performance on the two Kuder Preference Records is summarized on the attached self-interpreting profile leaflet. Normally, significance attaches primarily to those scores above the 75th percentile, and negatively to those below the 25th percentils.

Appended to this report is a summary of the interview which Dr. Davis conducted with Bobby's parents. It includes some recommendations by Dr. Buckley and bt Dr. Davis.

Attached, also, is a copy of the Essential High School Content Battery, which you may wish to examine in detail. When you are finished with this test, I should like to have it returned.

J.J.W.

Summary of Interview with the parents of Robert Amman--17 May, 1958

... Mrs. Amman stated that, although they knew that Bob was precocious when he taught himself to read by deciphering the letters on baby food jar labels at the age of eighteen months, there was no sign of emotional problems until the boy was three years old. When Bob was three the family moved to Richland, Washington, where Mr. Amman was assigned on a construction operation. Because the assignment was temporary, the family lived in a hotel in Richland, and Bob spent considerable time in the lobby of the hotel, talking to porters, desk clerks and the sales girl in the airline ticket office. Bob attracted considerable attention when he demonstrated to the airline people that he could rattle off the names of all the state capitols, give the approximate air miles between various cities, and cite the chief agricultural and manufactured products of different areas of the United States. Mr. Amman said that he often found Bob sitting up on the hotel desk entertaining the help with facts he had gleaned from travel folders, almanacs and guide books. Apparently this annoyed Mr. Amman a bit, but his wife--at this time--was proud of Bob and allowed people to ask him questions and check on his reading. Bob was at this time slightly under three, and when he was not answering questions he was reading for information.

Bob's fame spread outside the hotel, and people pointed him out on the street, and asked him questions. Word of the prodigy came to the local newspaper, and they did a full feature on Robert. Mrs. Amman said that Bobby read the article through, and had some fault to find with the facts. After the feature article appeared, Mrs. Amman could not take Bobby into the streets, without his being molested by older children, adults, policemen and admiring citizens. Bob began to become bored at the constant harrying, and finally he began to

answer: "I don't know" to questions he had once answered with ease. At the same time his speech began to deteriorate. His answers were intelligible only to his parents and a few friends, finally only his mother could understand him, and finally nobody could understand him. His words were jumbled, his sentences garbled, and he fell into terrific fits of temper when he was misunderstood.

The Ammans then returned to the East Coast. Bob was four. Bob was placed in the care of Dr. Phillip Quinn, a psychiatrist. The mother and father differ on Dr. Quinn. Quinn apparently was less concerned with personality dynamics than with physiological or neurological causes. The mother says: "He (Quinn) is of the New York School, and a number of the Boston people felt that Bob's trouble wasn't getting the right treatment." The father says: "He (Quinn) did help Bob to get his speech back." Both agreed that Quinn was strong on medical treatment and weak on psychological therapy, and that Bob still had severe temper tantrums and unreasoning fears and phobias, and would not play readily with other children. The Amman's were then living in Brighton near the housing project.

The parents then sent Bob to the Douglass Home (for play therapy). Mrs. Amman felt that the people there did a lot to bring Bob out of his more severe troubles, but apparently there was still conflict between Quinn and the Douglass people.

At five Bob was sent to the Chestnut Hill School for kindergarten. He did very well at the school, had an understanding teacher, and began to play with some of the children from the project. He was also reading away again.

At six Bob returned to Chestnut Hill for the first grade, but the teacher couldn't handle him. She said that Bob just didn't fit, and that she had far too many other kids to give him the time he needed.

After leaving Chestnut Hill in the first grade, Bob stayed out of school for two and a half years--until he started the fourth grade in the Weston Schools. Both parents agreed that Bob was very shaken by what he termed "his dismissal" from Chestnut Hill. Mr. Amman said: "He thought that they kicked him out for something he did, and we've never been able to convince him otherwise."

At Weston Bob has attended grades 4, 5 and 6. At first he found school a bit oppressive, and felt that he was unduly restricted. He seems to like it now, although he gets tired slogging through the tedium of decimal fractions and arithmetic. He has very little interest, according to his mother, in English and in writing. He hates to write, and she feels that he writes poorly. But he also, according to his father, is careless in arithmetic, and makes a lot of mistakes in computation and drill work. They feel that he gets along with the other children, who think he is a "cut-up," but Bob still cannot play with any youngsters his own age. When parents bring their children out--Mr. Amman says, "Any play is a made situation, and has to be arranged"--Bob will stay with the youngsters ^{briefly} and then drift away to what he is interested in.

Bob has had one friend, Rollo Silver, a man, now in his middle twenties and majoring in math or science at Harvard. Mr. Amman says: "Rollo is the genius type, I don't know what--if anything--he is doing now. I think he is at Harvard. Bob doesn't see much of him now, but for a year they saw a lot of each other." Mrs. Amman says that Bob and Rollo used to chat about science and outer space, and Bob was accustomed to save up his questions--things that had occurred to him when he was reading--~~to~~ to ask Rollo for the answers. Mr. Amman said: "They don't see much of each other now."

-4-

The parents say that Bob shows no impatience with other children of weaker abilities, of which there must be many; ^{if} that the kids like him because he clowns a lot. Bob still reads six or seven books a week. He reads in spurts, gets great interests in various sciences, i.e. anthropology, geology, archeology, etc, and reads through a great *number* *OF BOOKS*, ~~and then~~ finally, in his own words, "I burn myself out", meaning his interest flags and he goes on to something else. The parents get books in Weston, Boston, or anywhere they can.

Lately Bob has shown a great interest in television. The parents had no set until recently. He has many programs that interest him a great deal, and he watches educational features as well as drama, quizzes, soap operas, and old movies, of which he has missed a good many. He goes to bed reluctantly when some old movie is on.

Physically Bob is a bit undersized for his age, and he still speaks in a slightly odd manner. His choice of words is wide and his use ^{age} precise. His mother says that he is extremely timid, and lives in great fear of injury. He will not ride a bike, and he will not cross a street without holding his mother's hand. He worries about disease and injury; and if he is even slightly bumped at play he screams and moans.

Dr. Frank Buckley has added his impressions after reading the limited protocol: "Care should be taken to provide adequate supporting emotional-social environment together with continuing psychological counseling (or psychiatric care) embodying attention to emotional factors."

I (Russ Davis) should like to suggest that if any program in education is planned for the youngster it should take into account these things:

1. The program should start very gradually, and at first require only a few minutes of the boy's time in each day. I think it should avoid pushing him early to the extremes of physical fatigue. Even the ride in the car from Weston will take a lot out of this kid.

2. The program should, at first, be heavy in math and science, and then gradually move to areas where the kid is less gifted.

3. Some attempt should be made to guide the boy's reading. I think Bob should be introduced to some good, classical fiction, and learn to read for something other than information.

4. Bob is also going to need some guidance in writing, but this should be very carefully done.

5. No ballyhoo or publicity should be ^{Given To} made of the case, and it would be well if we could avoid signaling the boy out around the campus.

Russell G. Davis

Director, Boston College Office of
Educational Research

DER GENERALKONSUL
DER
BUNDESREPUBLIK DEUTSCHLAND

460 PARK AVENUE
NEW YORK 22, N. Y.
MURRAY HILL 8-3523

June 2, 1958

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

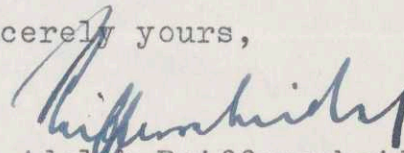
Dear Sir,

On behalf of the President of the Federal Republic of Germany, Professor Dr. Theodor Heuss, I have the great honour to invite you to a gathering of prominent citizens of the United States at the Waldorf Towers, Presidential Suite, on Sunday, June 22, 1958, 5:00 P.M.

President Heuss would be most delighted to welcome you there for a private talk with a small group of leading personalities on topics which interest you.

Would you be kind enough to let me know whether you can attend this meeting. I remain,

Sincerely yours,



Dr. Adolph Reifferscheidt
Consul General of the
Federal Republic of Germany

[ans 6/6/58]

List of Participants

CONFERENCE ON THE MATHEMATICS OF QUANTUM THEORY
Shelter Island, L. I. (N. Y.), June 3-6, 1958

V. Bargmann
F. H. Brownell
B. Friedman
K. O. Friedrichs
L. Gross
R. Haag
R. V. Kadison
B. Kostant
T. D. Lee
G. W. Mackey
E. J. McShane
H. Moses
L. Nirenberg
J. Schwartz
F. W. Stinespring
M. H. Stone
A. H. Taub
B. van der Waerden
G. C. Wick (?)
N. Wiener
A. S. Wightman
E. P. Wigner (?)
C. N. Yang
W. Zimmerman
B. Zumino

June 2, 1958

Mr. W. H. Ferry
The Fund for the Republic Inc.
60 East 42nd Street,
New York 17, New York

My dear Mr. Ferry:

In reply to your letter of May 29, 1958,
at the end of a hard year I am very tired and do not
feel that I am in a position to take on any further
writing, no matter how flattering the circumstances.
I am therefore sorry to say that I cannot be of any
assistance to you.

Sincerely yours,

Norbert Wiener

NW:AD

June 2, 1958

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

Dear Mr. Riesel:

I appreciate very much your request for an article for your column. The amount of work involved is quite reasonable, but I am still afraid that I will have to turn it down. The reason is that I find writing such articles and making public appearances and lectures are getting to be in total a burden that is more than I can stand at present if I am still to be active scientifically. This does not mean that the bulk of work that you are asking for is large, but it does mean that it will serve to advertise that I am still occupying myself with writing such articles, and will greatly increase the number of requests which I absolutely must turn down. The only way that I can see clear to avoid this is to abandon it as a whole.

In view of the above, I am sure you will understand my position.

Sincerely yours,

Norbert Wiener

NW:AD



COMITATO NAZIONALE PER LE RICERCHE NUCLEARI
SCUOLA DI PERFEZIONAMENTO IN FISICA TEORICA E NUCLEARE
NAPOLI

li 3rd June 1958
Mostra d'Oltremare - Tel. 387681

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

Dear Professor Wiener:

I wish to express to you my thanks for having accepted our invitation to come to the Summer Course on Information Theory at Varenna. Your presence will no doubt greatly contribute to enhance the tone of this course, and has aroused much expectation.

I am submitting to your approval a tentative program which I have prepared for the morning lectures; afternoons are left free for seminars and discussions. I have taken the liberty of proposing your name, together with that of Professor Wiesner, for the important rôle of chairman; I could not certainly make a better choice, and I do hope that you may find it possible to accept. I am looking forward very much to the pleasure of welcoming you in Varenna.

Sincerely yours,

Prof. E. R. Caianiello

ERC:amh

[ans 6/11/58]

American Scientist

PUBLISHED QUARTERLY BY THE SOCIETY OF THE SIGMA XI
FOR THE ENCOURAGEMENT OF RESEARCH IN SCIENCE

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Board of Editors

P. O. BOX 703
PRINCETON, N.J.

June 3, 1958

Dear Dr. Wiener:

The Editors hope very much you may be willing to review the von Neumann book, "The Computer and the Brain" for us.

Limitations of space make it necessary for us to ask you to restrict your review to 300 words, typed double spaced with two copies to this office. September 15 is the deadline for the December issue. If you will indicate on the enclosed card your willingness to do this notice for us, the book will be forwarded to you at once and, of course, becomes your personal property.

If you are not free to undertake this in the course of the summer, perhaps you would suggest a fully competent colleague who might be interested though we cannot guarantee publication of reviews received. However, we very much hope to have your favorable reply.

Very truly yours,

E. C. Gillispie

(Mrs. Charles C. Gillispie)
Secretary to the Board of
Editors

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

[ans 6/14/58]

PROF. D. D. KOSAMBI



P. O. DECCAN GYMKHANA
POONA 4

June 4, 1958.

Dear Norbert,

Masani must have explained the difficulties I have experienced in finding referees for my enclosed script. The trouble was partly my own miserable and slipshod way of expression, but also the need to find someone who knew two or three different branches of mathematics. I should have sent you a copy earlier, but for the fact that I am supposed to be convalescing here over the summer holidays, and getting typed copies is not a simple matter under the circumstances.

Please excuse the delay, and give me your frank opinion. If you think the paper suitable for publication, we shall discuss the place later. But I do hope that you have time enough to go through the paper quickly, and with your usual penetration.

you inf.
Baba

[ans 6/16/58]

XXXI^e CONGRÈS INTERNATIONAL DE CHIMIE INDUSTRIELLE
LIÈGE — 7 - 20 septembre 1958 — BRUXELLES

Secrétariat Général :
**Fédération des Industries Chimiques
de Belgique, a. s. b. l.**

32, rue Joseph II - Bruxelles IV - BELGIQUE

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Compte Chèques Postaux : 3740.18

Banque de Bruxelles : 17507

Société Générale de Belgique : 952171

Bruxelles, le 5th June, 1958.

Dr Norbert WIENER,
Professor of Mathematics at the
MASSACHUSETTS INSTITUTE
OF TECHNOLOGY,
50, Memorial Drive,
CAMBRIDGE 39.
Mass. - U.S.A.

Prière de rappeler la référence ci-dessous :

31 Cg /

Dear Dr Wiener,

With great pleasure I heard of your coming in Europe in the course of July in order to participate, in a cyclus on Information theories in Italy.

From September 8th to 13th will be held at Liège, Belgium the 31st International Congress on Industrial Chemistry. This congress is organized in the framework of the congresses regularly held by the "Société de Chimie Industrielle" of Paris. I enclose herewith a notice providing a general review of the organization of this congress.

Since this congress will be set up in the frame of the events which will take place in Belgium during the World Exhibition.

The scientific committee of the congress decided to spread its activities among several groups. Personally I am the chairman of Group X on "Organization of research and production". For your information I enclose hereby a document summing up the different subjects which are set to be dealt with by this group.

Knowing your competence, I would be very interested and grateful if I could count on your co-operation to cope with a subject of paramount importance and of an high scientific value, for instance "The contribution of cybernetics to research", or any other subject along this line you might choice.

.../...

XXXI^e CONGRES INTERNATIONAL
DE CHIMIE INDUSTRIELLE
Liège — 7-20 septembre 1958 — Bruxelles

Suite No : 1

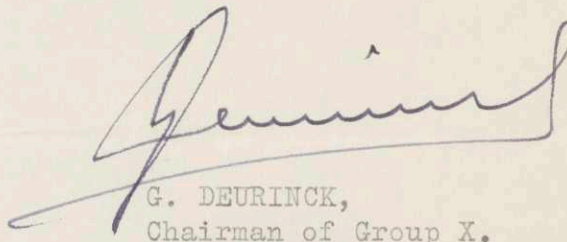
Lettre du 5th June, 1958.

If you would be willing to do so, I naturally would take the necessary measures to cover part of the expenses involved.

I hope that you will have the possibility to come to Belgium at that time.

I thank you in advance and remain, dear Dr Wiener,

Very sincerely yours.



G. DEURINCK,
Chairman of Group X.

[ans 6/26/58]



THE

AMERICAN JEWISH COMMITTEE

386 FOURTH AVENUE, NEW YORK 16, N. Y. Cable Address, "WISHCOM, NEW YORK"

Telephone MURRAY HILL 5-0181

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A. M. SONNABEND, *Boston, Vice-President*

June 5, 1958

Dear Prof. Wiener:

President Theodore Heuss of the Federal Republic of Germany is paying a brief visit to the United States during the month of June. As you know, Dr. Heuss has been one of the most courageous opponents of totalitarianism in Europe. A victim of the Hitlerian persecution, he is the "father of the Bonn Constitution." Since his election to the presidency, he has been in the forefront of the spiritual and moral struggle for the democratic and human regeneration of his country.

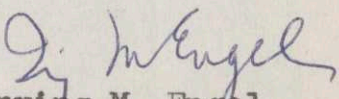
Due to the present political situation in Europe, it is especially important that American leaders establish and maintain friendly relations with the leaders of West Germany. Since Germany became a sovereign state, practically every major lay and religious segment of the American community has established such relations with the German official family.

Dr. Heuss has expressed a special wish to meet with leading American Jewish personalities. This occasion should prove of particular value in assisting the President of Germany in his effort to rid that country of any existing bigotry and prejudice.

You will be receiving an official invitation to meet with Dr. Heuss at a small informal gathering on Sunday, June 22nd, at 5 p.m., in the Presidential Suite of the Waldorf-Astoria Hotel.

I urge that you be present, if at all possible. I shall be very grateful if you will let me know whether you may be expected on this important occasion.

Sincerely yours,


Irving M. Engel,
President

Prof. Norbert Wiener
Mass. Institute of Technology
Cambridge 39, Mass.

IME/ss

[ans 6/11/58]

BROWN UNIVERSITY

PROVIDENCE 12, RHODE ISLAND

June 5, 1958

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

Dear Professor Wiener:

By now some of the manuscripts have started coming in to the volume of survey papers to be dedicated to Harald Cramér. I hope that your work on your manuscript is coming along well. There is still some time before we can start printing, so you should not feel rushed at all.

To judge from the manuscripts that have arrived so far the volume looks very promising. I just got a paper by Feller on combinatorial methods, which was very interesting and there are several other valuable contributions.

Sincerely yours,

Ulf Grenander

Ulf Grenander

UNIVERSITY OF MARYLAND
SCHOOL OF MEDICINE
BALTIMORE 1, MARYLAND

DEPARTMENT OF PEDIATRICS

June 6, 1958

Dr. Norbert Wiener
Department of Mathematics
Massachusetts Institute of Technology
Boston, Massachusetts

Dear Dr. Wiener:

I should like to express the pleasure of the student body and the committee for the course "Man and His Environment" with your presentation here. We should be happy to have you repeat your appearance, either using the same material or any new material you may have to discuss, in general relating to the subject of communication, on April 18, 1959, with the same arrangements to be made as before. Please let me know whether this date will be suitable for you.

My son was deeply impressed by his meeting with you and said that he now has met three important people. Dr. Fritz Lipmann, Dr. Norbert Wiener, and his father. I am duly appreciative of the honor.

With highest regards,

Yours sincerely,



Samuel P. Bessman, M.D.
Associate Professor of Pediatrics

SPB;jb

[ans 6/19/58]

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

CAMBRIDGE 39, MASSACHUSETTS

June 6, 1958

Dear Mr. Brennan:

I have made several attempts in the past few days to reach you but without success. Since I am leaving today I am sending you a letter which Professor Wiener asked me to give you some time ago for your attention, and also some work you have done. If the latter should have been retained in this office I am sorry, but I was not sure what should be done with it.

Sincerely

Alice Newsnap

Secretary to Prof. Wiener

Journal of Mathematics and Mechanics

Graduate Institute for Mathematics and Mechanics

Indiana University, Bloomington, Indiana

June 6, 1958

Professor N. Wiener
Department of Mathematics
Massachusetts Institute of Technology
Cambridge 39, Mass.

Dear Professor Wiener:

The paper by you and Professor Akutowicz on "A factorization of positive Hermitian matrices" has been communicated by Professor Walsh and is presently scheduled to appear in the January 1959 issue.

Sincerely yours,

Robert E. MacKenzie
Robert E. MacKenzie
Assistant Editor

REM:mf
cc: Professor Walsh
Encl.: (1)

C O P Y

JOURNAL OF MATHEMATICS AND MECHANICS

Authors: Professor N. Wiener and Akutowicz

Title of paper: A factorization of positive Hermitian matrices

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Professor Akutowicz
Mathematics Department
Massachusetts Institute
of Technology
Cambridge 39, Massachusetts

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and/or organization who are to be billed for the paid
offprints (if any).

RUTGERS • THE STATE UNIVERSITY
NEW JERSEY AGRICULTURAL EXPERIMENT STATION

DEPARTMENT OF SOILS

NICHOL AVENUE
NEW BRUNSWICK NEW JERSEY

June 6, 1958

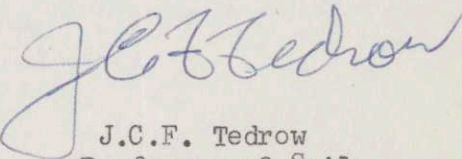
Prof. Norbert Wiener
Department of Mathematics
Massachusetts Institute of Technology
Cambridge 39, Massachusetts

Dear Professor Wiener:

The Society of Sigma Xi at Rutgers University is now shaping up its 1958-59 program, and we would like to know if you could be our speaker at either the January 19, or February 16, 1959 meeting. The subject would be of your own choosing. This next year we are making an attempt at bringing in more outside speakers, and your name was submitted with highest recommendations.

Unfortunately, our chapter, like most others, has very limited resources and we therefore must try to get speakers at the time they are scheduled to be in the area. It is unfortunate that we cannot offer an honorarium to our speakers but I suppose all of us in the education field understand the situation. If you could not make either of the above dates but plan to be in this area at another time, would you consent to give us a lecture at a date of your own choosing?

Very truly yours,



J.C.F. Tedrow
Professor of Soils

JT:L

[ans 6/19/58]

June 6, 1958

Professor E. Breitenberger
Department of Physics
University of Malaya
Singapore 10, Malaya

Dear Professor Breitenberger:

Professor Wiener is out of town at the present time but has asked me to acknowledge receipt of your letter to him of May 29th. The lectures he referred to in his letter of March 4th will be published in book form by the Technology Press sometime in the fall under the title of "Non-Linear Problems in Random Theory". You will be able to obtain them at that time from the bookstores.

Very truly yours,

Secretary to
Professor Norbert Wiener

June 6, 1958

Professor Maxwell H. Goldberg, Executive Director
Humanities Center for Liberal Education
South College, University of Massachusetts
Amherst, Massachusetts

Dear Professor Goldberg:

Thank you for your invitation to attend The
Third Annual American Humanities Seminar to be held at
the University of Massachusetts July 14-16th. I am
very much honored and would certainly be happy to accept,
but I am leaving Boston on June 27th to attend a summer
school at Lake Como, Italy, and will not return until the
first of August.

My best wishes for the success of your seminar,
and again my thanks for inviting me.

Sincerely yours,

Norbert Wiener

NW:AD

June 6, 1958

Dr. Mieczyslaw Choynowski,
Slowackiego 66
Krakow
Poland

Dear Dr. Choynowski:

It was with regret that I learned of your visit to my office on May 29th during my absence. I would very much have liked to see you and discuss with you the work you are doing with the Polish Academy of Sciences. Thank you for leaving a copy of your article written in Polish.

I find that your letter of June 9, 1957 had been misplaced and so was not answered as it should have been. Please accept my apologies for this oversight.

With regard to my paper on "Time, Communication and the Nervous System", I must inform you that the copyright is in the hands of the University of Southampton, England, and permission to omit part of the title for your publication would have to be cleared through them. As my secretary advised you, there are no reprints available at this time on the papers you mentioned.

As you requested, I am enclosing herewith a photograph, a list of publications and biographical information.

Again may I say I am sorry I was not here at the time of your visit and to wish you success with the work you are doing.

Sincerely yours,

Norbert Wiener

NW:AD
Encs.

June 6, 1958

Dr. Adolph Reifferscheidt
Consul General of the
Federal Republic of Germany
460 Park Avenue
New York 22, New York

Dear Sir,

It is with regret that I must decline your kind invitation to a gathering of prominent citizens of the United States at the Waldorf Towers on Sunday, June 22nd. I am highly honored by this invitation, and would most certainly be happy to attend if it were possible. However, due to a previous commitment for that date I am unable to do so.

Please convey my best wishes to Professor Dr. Theodor Heuss.

Sincerely yours,

Norbert Wiener

NW:AD

June 7, 1958

Dear Dr. Weiner

In cleaning up the semester's accumulations, I found I had kept two copies of the letter enclosed. I'm sorry I didn't forward you one as soon as it appeared.

In order to believe this letter wasn't in those parts where I used your name, a personal diatribe, (as I didn't honestly write it as such), you have to do no more than look at the "Life" issue of the last week of March I believe, that particular issue carried an article on the proposed use of "S.P.", subliminal perception, in advertising, movies, and T.V. . . My own field, neurophysiology, has contributed nerve gases, and the psychologists, "motivational research". Perhaps a distorted criteria is the many fields of work under (U.S.) Navy research grants.

Most of these developments mushroomed because of their marketability. Fortune magazine (and even Time magazine indirectly) often gives precise synopses of who and how such organizations as Ramo-Wolridge & Systems Inc, and other groups dealing in missiles arose. The men running these corporations were electrical engineers a few years ago, who decided to manage concerns that obviously had products a specific buyer wanted. It turned out in the "Life" article, that the leading "S.P." research group is run by a former psychologist who had gone to work for the Army, (one step perhaps towards losing one perspective and gaining a narrow, precise, new one), and then widened his efforts by what he could ^{probably} imagine as a newly marketable business with other customers besides the military he previously worked for. And now its off on the public. This situation of the inviting effect of our economic system to the individual perhaps completely amoral, with a new commodity, seminally immoral, or at best, also amoral, that is useful to some buyer, with no one to say "be careful", or "poison" - is the crucial point. Sincerely yours,
Milton Leitenberg

Scientist Objects

Not having been present at Dr. Weiner's Gen. Ed. session, I read of his answer to the question of the scientist and "potentially dangerous and inevitable situation" in the last Justice. The answer always seems to be "I must carry on as a scientist," a sort of pony express rider complex that gets more and more ludicrous in the 1950's, or "would you have me wait for someone else who will do it anyway." After the example and existence of the Bulletin of Atomic Scientists for five years, and the present nuclear situation, the question of when will all the "Dr. Weiner's" form "Associations of Atomic Scientists" before and while their work is still in progress is still an **absolutely** unthought of possibility in the minds of U. S. scientists. Never in any country since the industrial revolution has any group of working scientists tried to determine or condition societies reception or understanding of their new invention or theory. Why doesn't Dr. Weiner make the attempt to see to it, that if this invention must be brought forth, he and his colleagues can control what form it will take and its uses by agreeing as best they can ten years before, not ten years after, the problem is out of their hands. Only in these generative stages can a **limited** number of men, several hundred perhaps, say in which direction work shall go if they will work in that direction or not. We do see after all that they often agree ten years after, which is one half the answer to the criticism that it's impossible. The other half of the answer is that it's never been tried, most often the situation when "impossible" is **unsolved, resolvable.**

Groups in Cambridge, England, the U. of Penn. and under Dr. Skinner at Harvard have perfected a "teaching machine" for the public school and college level. They will undoubtedly come into use. Ten years from now a harried group of men will as undoubtedly form an Association for Behavioral Psychology and Public Affairs. **These Men** can see beyond their tomorrows lab problem as individuals, Dr. Wiener knows that aspects of his work are potentially dangerous. Why can't they see the same thing in unison, and themselves modify their notions of control, instead of falling back as stress after stress is piled on, as even Bronowski has done, **to** "Science never turns aside." It is true the men who make chess-playing machines, and **the** self-regulating devices such as "friend or foe" homing missiles, are pictured as rather rarified beings, but we found out that many of the atomic physicists whom we pictured to be in the same cobwebbed lot, aren't, from various groups, something to the tune of 6,000 aren't. If Dr. Wiener could see as "a type of action" an "An Association of Computer Developers" at this time, rather than poor, whimpering "inaction," our future might not seem a hideous choice of a dozen already checkmated situations devices have prepared for us on punched tapes. —Milton Leitenberg

he can.

Reports on Intramurals

In reference to a report concerning the intramural program delivered recently to the Athletic Committee by Mr. Harry Stein, Fuchs said: "I am completely in agreement that there is room for improvement. I was surprised and pleased at the extent of the program, particularly the women's program. Undoubtedly, as is true of any academic department, the program can be strengthened and improved." Below is reproduced a copy of the report on intramurals presented to the committee.

Males:—Basketball—87 participants, 10 teams. **Softball**—to date 8 teams have submitted rosters involving 110 participants—two teams are faculty and Buildings and Grounds. A **Tennis** tournament is also planned pending completion of the courts.

Females:—Basketball—not enough participation to warrant a schedule. **Volleyball**—90 participants, 15 from each of the 6 dorms, 27 nights spent in competition—75 resident students and 20 commuters involved. **Badminton**—22 participants; double elimination tournament. **Softball**—9 teams registered for competition. **Tennis**—70 girls are out for tennis. This in-

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SC Discusses Tuition, O

Two meetings of the Student meeting, Council passed resolutions book staff.

Martin Peretz suggested that be allocated for this purpose. During lecture programs although it's lectur

Next on the agenda, was the Hi-Charlie request for a \$150 extention of it's current budget. Due to the unforeseen expense of an extra week's rental fee, the club will not be able to have its Loan and Award Fund or send out letters to the Freshmen during the summer recess unless it is granted an additional allocation, club president Jay Kobrin said. Though it usually disapproves of such requests, Council gave the necessary request to Hi-Charlie because of the extenuating circumstances.

Handbook Staff Selected

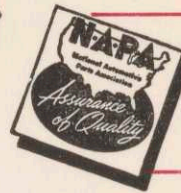
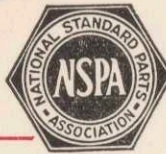
Council then selected the staff for the forth-coming Freshman Handbook. Marilyn Schneider and Ruth Siegal were elected as editors, with a staff of ten. It was further decided that the editors have the right to request the resignation of any staff member during the summer if he does not live up to his responsibility, and to selected a new member to replace the old.

At the Monday meeting, Council considered the Tuition Committee Interim Report, the Weekend Lecture Series, the Interim Orientation Committee and it's report, and the Food Committee interim report.

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LINCOLN

Motive Parts, Inc.



20 Lincoln Way East
Jeannette, Pennsylvania
Phone LAfayette 3-5557

June 7, 1958

Dr. Norbert Weiner
c/o M.I.T. University
Cambridge, Mass.

Dear Dr. Weiner:

I am grateful for the opportunity to have met you, on my recent visit to Boston. Mrs. Stein and I appreciate the time you gave me and the good advice on how to make the most of David's talents.

We have not found a school that would meet his needs, however we hope to find one in the next few weeks with the help of a number of educators interested in David.

I'm looking forward to seeing you again the next time I am in Boston. In the meantime I will keep you informed of David's progress as you asked.

With kindest regards,

Joseph Stein
Joseph Stein

1505 Duke U.Rd
Durham, N.C.
June 8, 1958

Dear Doctor Weiner,

In your book (a very interesting one) Cybernetics you used the phrase "paralyzing the minds of the masses". Could you explain just how this is being done please.

Sincerely
William L. Defferies

June 9, 1958

Mr. Thomas H. D. Mahoney
Director, Registry of Guests
Massachusetts Institute of Technology
Cambridge 39, Massachusetts

Dear Mr. Mahoney:

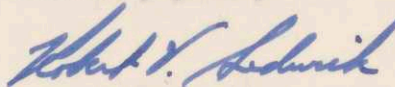
Dr. Kato and Mr. Tokue have arrived safely in the United States and are at present in New York City. They are due to arrive in Cambridge on schedule on June 16 coming from Schenectady and will leave on June 23 to return to New York.

In conversations with Dr. Kato here he said that he would prefer to visit MIT on June 19. We hope that this date will be convenient for you and Professor Economos. We have not had any reply from Professor Wiener, and I wonder whether he is in Cambridge this summer. May I suggest that you leave a message for Dr. Kato at the Commander Hotel in Cambridge giving him instructions as to how he should contact you.

Once again may I express our appreciation for your assistance to Dr. Kato. We enjoyed his visit here, and we hope you will find him an interesting guest.

With best wishes,

Sincerely yours,



Robert V. Sedwick
Organization Relations Division

cc: Professor Economos
Professor Wiener

[ans 6/16/58]

MASSACHUSETTS INSTITUTE OF TECHNOLOGY
LINCOLN LABORATORY
LEXINGTON 73, MASSACHUSETTS

Volunteer 2-3370

June 10, 1958

Dr. J. Lemaire
Association Internationale de Cybernetique
13 Rue Basse Marcelle
Namur, BELGIQUE

Dear Dr. Lemaire:

Professor Wiener's secretary has just forwarded your letter to Professor Wiener of 4 April 1958, and the galley proofs of Wiener's paper, "My connection with cybernetics, its origin, and its future". Apparently Professor Wiener gave this material to his secretary to give to me some while ago, but it apparently became mislaid until now.

I believe that your editorial changes mentioned in your letter would be entirely agreeable to Prof. Wiener. However, there are a number of typographical errors in the text. Probably many of these would have been caught by your editorial staff, but I am enclosing the corrected galley proofs in case they were not and in case there is still time to make many additional corrections.

Professor Wiener is not in the Cambridge area at the moment.

Sincerely,

D. G. Brennan

DGB:ep

CC: N. Wiener ←

Enclosure

UNIVERSITY OF CALIFORNIA

DEPARTMENT OF MATHEMATICS
BERKELEY 4, CALIFORNIA

June 10, 1958

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

Dear Wiener,

Here are the references I promised you about
the applications of Hermite functionals to statistical
mechanics:

Harold Grad, "Note on n-Dimensional Hermite
Polynomials", Communications of Pure and Applied
Mathematics, vol. 2, No. 4, pp. 325-331, and

Harold Grad, "On the Kinetic Theory of Rarefied
Gases", Communications of Pure and Applied
Mathematics, vol 2, No. 4, pp. 331-407.

An article on kinetic theory of gases by Grad will
appear in Handbuch der Physik, Vol. 12, to appear in
1958.

Please give my regards to Mrs. Wiener.

Sincerely yours,

Bernard Friedman

Bernard Friedman

BF:dw

[ans 6/10/58]

LETTERS

COMPUTER SCIENTISTS ARE INTERESTED

To the Editor of the Newsletter:

SSRS Associate Edmund C. Berkeley, Editor of Computers and Automation, has been carrying on an experiment which should be of great interest to SSRS members generally. Beginning with the January issue of his magazine, he has published a series of articles which are concerned with the social impact of computers and automation, and which emphasize the problem of social responsibility. Each article consists of a number of communications, together with editorial comment.

The titles of the first four such articles of this year suggest their content. They are: *Curse or Blessing? Cooperation in Horror; Destruction of Civilized Existence by Automatic Computing Controls*; and *The Social Responsibility of Computer Scientists*.

In the first of these, Berkeley asks his readers to write him whether they desire a discussion on the social responsibility of computer scientists or whether they prefer that the magazine stick to the technical side and leave the controversial subject of the social effects of computing devices to other people. The April editorial reports the response to this request: eight replies, all of them endorsements of discussions on social responsibility.

For Editor Berkeley the path is thus clear. However, the conclusions which he draws from his experience go well beyond this: if computer scientists are concerned with the social meaning of their work, so are technical people in other fields. It is hence proper for us to encourage editors of technical publications generally to open their columns to the discussion of social issues relevant to their field.

I would welcome hearing from any SSRS members or associates who may be interested in working with Edmund C. Berkeley to create a broader forum for the discussion of social responsibility and related issues in the technical press.

Edward G. Ramberg
900 Woods Road
Southampton, Pa.

P.S. Since the above was written, Edmund C. Berkeley has reported, in the May issue of *Computers and Automation*, on the outcome of a more extensive poll of computer people on the desirability of printing articles on social responsibility. 18,000 ballots were mailed. Of the 217 voted ballots returned, 118 favored discussion of social responsibility, 83

recommended sticking to technical subjects, and 16 expressed views which did not indicate a clear preference in either direction. While the outcome of this poll is not nearly so one-sided as the limited response to the earlier query, it still indicates a strong reader interest in the question of social responsibility, represented by a majority of those who bothered to indicate their preference. SSRS members will also be interested in Neil Macdonald's article "An Attempt to Apply Logic and Common Sense to the Social Responsibility of Computer Scientists" in the same (May) issue of Computers and Automation.

--E.G.R.

GRCMYKO'S CHESS GAME--OUR MOVE

To the Editor of the Newsletter:

Whether Russia is concerned about fallout or only about propaganda victories, her announcement to stop bomb tests (to be reconsidered if necessary) was a brilliant move. Every possible countermove on our part is unpleasant and some are fatal.

One fatal move would be to pour scorn on the Russian announcement. If we blithely continue our tests until a satisfactory inspection system is set up (an aim now considered by many as impossible since ICBM's with nuclear warheads may already be in secret launching positions) Russia may well announce in a year's time

from heaven into the control of men, no man has been completely safe from death by fire started by his enemies. From the time the airplane was invented, man has not been safe from death from the skies. And now we shall never be safe from nuclear destruction--except through the creation of trust between man and man.

C. Theodor Benfey
Earlham College
Richmond, Ind.

EMPLOYMENT

The Occupation Division of the SSRS was created for the purpose of making it easier for scientists to act according to conscience when choosing their employment. If a man loses his job because of his attitude toward performing duties involving "destructive" work, or if he leaves a job because he is conscientiously unable to perform work he deems immoral, the SSRS Occupation Division may be able to help.

One of the ways we do this is by publishing ads like the ones below.

These ads are not limited to SSRS members; the service is available to any scientist who has job problems related to conscience or to the use of his professional skill for constructive purposes. No charge is made for this service.

We invite everyone to use this service if he needs it. We invite employers who have constructive jobs available to list them, and to look over the listings of our job-seekers.

All correspondence regarding the printing of ads and replies to ads should be sent to the Occupation Division Chairman, M. Jane Oesterling, Woman's Medical College, Philadelphia 29, Penna. When a name is given in the ad for a direct reply, a copy of the correspondence should be sent to Jane Oesterling if possible, so that the effect of this system can be estimated.

May 1958
Science

Milton Leitenberg

Brandeis University
Waltham 54, Mass.

M5

June 10, 1958

Dear Dr. Weiner,

I hadn't known of this when I wrote you last week, this is from a newsletter of the

"Society for Social Responsibility in Science," (S.S.R.S.)

I'm hoping you will be interested in just simply reading this - but you see there are others in your field with ~~similar~~ thoughts similar to the ones I enclosed in my previous note, and with whom contact could be made.

Sincerely yours,
Milton Leitensberg.

THE
NEW YORKER
No. 25 WEST 43RD STREET
NEW YORK, 36, N. Y.



OXFORD 5-1414

June 10, 1958

Dear Professor:

I was very touched at your coming to see me as you did. I was fascinated with what you told me of your current projects -- really exciting work.

Sorry I was feeling a bit blue that day. I was in the process of writing the introduction to a piece, which is always an ~~agony~~ agonizing experience. However, I suppose, it's a question of saying not the struggle naught availeth.

I'm very glad you have such an easy attitude toward the novel. It's a good augury.

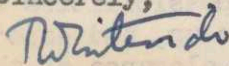
I was struck by wonder at all the possibilities this brain-wave research must open up, and especially I was impressed with the elegance of the logical processes

that obviously are involved in your approach to the problems. A search for unknown truths must have a lovely resonance. ~~It~~ It conveys a certain soaring quality. I saw in a review the other day a reference to Freud as "the great cartographer of the mind." Well, I think he was more of a geologist, discovering and disentangling the layers of consciousness. I don't even think that you would be a cartographer, as that implies phrenology. I'll have to think of a word, I guess. I was very intrigued at the idea of the gates of the brain. (Hamlet's ghost: " ...that swift as quicksilver it courseth through the gates and alleys of the body (!)) Isn't this a little like using FM as a means of communicating messages in code?

certain

If ~~the~~ incoming impulses are received only at certain peaks and valleys of the governing wave, or its constituent waves, would it be possible for you to figure out how many different, parallel messages can be received at once over the spectrum? In other words, if you were to compare the brain to a computing machine, how many units of information can the brain theoretically absorb in a lifetime? I am so very curious about all this. You don't know how I envy you for your marvelous curiosity. If your head ever should split wide open, and God forbid as the Jewish saying is, what a staggering load of ideas would come tumbling out!

Sincerely,



Thomas Whiteside



WAYNE STATE UNIVERSITY

STUDENT-FACULTY COUNCIL

DETROIT 2, MICHIGAN

June 11, 1958

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

Dear Dr. Wiener:

I wish to express the appreciation of the Wayne State student body, particularly those students present at the dinner meeting you participated in during your visit to our campus in connection with the symposium on "The College Professor". Your contribution to the symposium was most profitable to us and we students feel deeply indebted to you for your presence at our meeting on the evening of April 16. We thank you for your interest in us and we hope that your visit to our campus was both enjoyable and worthwhile to you.

With very best wishes.

Donald Peteet
Chrm., External Affiliations
Student-Faculty Council

June 11, 1958

Mr. Donald G. Brennan
300 Westgate West
Cambridge 39, Massachusetts

Dear Mr. Brennan:

Your thesis proposal has been approved. Your thesis committee is Professor Wiener, Professor McKean, Professor Nash.

Sincerely yours,

G. B. Thomas, Jr.
Graduate Registration Officer

GBT:pr

cc: Professor Wiener
Professor McKean
Professor Nash

South Tamworth
New Hampshire
June 11, 1958

Prof. E. R. Caianiello
Comitato Nazionale Per Le Ricerche Nucleari
Scuola Di Perfezionamento In Fisica Teorica E Nucleare
Napoli, Italy

Dear Professor Caianiello:

I am looking forward to the Summer Course on Information Theory at Varenna. I am highly honored by your nominating me for one of the chairmen of the meeting. I am very inefficient at administration and I am afraid that Professor Weisner will have to do most of the work.

I have quite a lot of new material on coding that I would like to discuss with you.

Sincerely yours,

Norbert Wiener

NW:jc

South Tamworth
New Hampshire
June 11, 1958

Mr. Irving M. Engel, President
The American Jewish Committee
386 Fourth Avenue
New York 16, New York

Dear Mr. Engel:

I am much honored by your request that I come down to the meeting in honor of President Heuss of the Federal Republic of Germany. Unfortunately it finds me at a time of great fatigue and of my preparations for a hurried trip to Europe, so that I am afraid I must beg off.

Will you pass on to the President my sincere regrets.

Sincerely yours,

Norbert Wiener

NW:jc

South Tamworth
New Hampshire
June 11, 1958

Mr. H. Hinglais
30 Rue de Miromesnil
Paris 8e, France

Dear Mr. Hinglais:

I am passing on your letter concerning
a young student to my friend Dr. J. Weisner, who
may be able to do more about the matter than I can.

I hope you will be able to hear from him
soon.

Sincerely yours,

Norbert Wiener

NW:jc

Copy sent to Prof Weisner 6/19/58

South Tamworth
New Hampshire
June 11, 1958

Professor J. Weiner
Electronics Laboratory
Massachusetts Institute of Technology
Cambridge 39, Massachusetts

Dear Jerry:

As usual I am passing my troubles on to you. I know nothing about the Hinglais business and I couldn't do anything about it if I did. You will at least know what to write.

I see that we are acting as the joint consuls of the Varenna meeting. Isn't it going to be a little puzzling to know who knocked the "s" out of your name for part of the program?

A rivederci,

Norbert Wiener

NW:jc

June 12, 1958

DEPARTMENT OF MATHEMATICS

Dear Professor Wiener:

The following difficulty remains in reducing the ~~the~~ non-linear prediction problem to one of polynomial approximation. Let

\mathcal{B} = a Borel algebra of subsets of Ω

P = a probability measure on \mathcal{B}

f_k = real-valued functions $\in L_p(\Omega, \mathcal{B}, P)$ for all $k \geq 1$,
 $-\infty < k < \infty$.

\mathcal{B}_0 = the smallest Borel subalgebra of \mathcal{B} with respect to which each f_k , for $k \leq 0$, is measurable.

\mathcal{N}_0 = the set of all real-valued functions on Ω which are \mathcal{B}_0 -measurable

R_0 = the ring generated by the f_k , for $k \leq 0$.

Triviality. $L_2(\Omega, \mathcal{B}_0, P)$ is a closed subspace of $L_2(\Omega, \mathcal{B}, P)$;

in fact $L_2(\Omega, \mathcal{B}_0, P) = \mathcal{N}_0 \cap L_2(\Omega, \mathcal{B}, P)$.

Problem. To show that R is everywhere dense in $L_2(\Omega, \mathcal{B}_0, P)$

The difficulty in proving this remains even when we take account of just one function, say f_0 , instead of f_0, f_{-1}, f_{-2} , etc. Thus let

$\mathcal{B}_0 =$ The smallest Borel sub-algebra of \mathcal{B} with respect to which f_0 is measurable

$\mathcal{N}_0 =$ The set of all real-valued \mathcal{B}_0 -measurable functions

$\mathcal{R}_0 =$ The ring generated by f_0 .

It is known (e.g. Doob's book) that

I. To every $\phi \in \mathcal{N}_0$ corresponds a Baire function Φ on $\langle -\infty, \infty \rangle$ such that $\phi(\omega) = \Phi\{f_0(\omega)\}$;

II. There exists a distribution function F on $\langle -\infty, \infty \rangle$ such that if Φ is any (integrable) Baire function, then

$$\int_{-\infty}^{\infty} \Phi(x) dF(x) = \int_{\Omega} \Phi\{f_0(\omega)\} P(d\omega).$$

Define $L_{2,F} =$ the set of all Baire functions on $\langle -\infty, \infty \rangle$ for which $\int_{-\infty}^{\infty} |\Phi(x)|^2 dF(x) < \infty$

Since by I & II

$$\int_{\Omega} |\phi(\omega)|^2 P(d\omega) = \int_{\Omega} |\Phi\{f_0(\omega)\}|^2 P(d\omega) = \int_{-\infty}^{\infty} |\Phi(x)|^2 dF(x),$$

we conclude that

III. $\phi \in L_2(\Omega, \mathcal{B}_0, P) \Rightarrow \Phi \in L_{2,F}$; moreover $\|\phi\| = \|\Phi\|_F$

Taking $\phi = |f_0|^2$, we see that

IV. The distribution function F has moments of all orders.

* Assume The polynomials $\sum_0^n c_k x^k$ are everywhere dense in $L_{2,F}$.

Then $\|\Phi - \sum_0^n c_k x^k\|_F < \epsilon$

Taking Φ so that $\Phi\{f_0(\omega)\} = \text{given } \phi(\omega)$, we conclude from III that

$$\|\phi - \sum_0^n c_k f_0^k\| < \epsilon,$$

which is what we wanted to show.

But the Assumption* needs proof. Since, if I am not mistaken, all we know about F is that it has moments of all orders, why should this assumption hold. The polynomials could span a proper subspace of $L_{2,F}$.

Your remarks on this are earnestly solicited. As I am leaving for Princeton on the 18th, I will not be seeing you until I return here, which will be in very late August or early September. I will be in the Inst. for Advanced Study till July 10. Then c/o Math. Dept., University of Chicago for the rest of July, and at U.C.L.A. (Math. Dept.) during August.

The following papers remain to be written:

- A. Non-linear prediction (for Grenander's volume on Cramer)
- B. Bivariate processes of degenerate rank (to tie up with Nevanlinna's work, etc.)

I would first like to finish A. as Grenander would like to have it soon. So please send your remarks on the question raised as soon as possible.

With kind regards, and wishing you an interesting visit to Europe,

Sincerely yours
Peri Masani

8 Martins Lane
Daylesford Village
Berwyn, Pennsylvania
June 12. 1958

Dr. Norbert Weiner
Massachusetts Institute of Technology
Cambridge, Massachusetts

Dear Dr. Weiner:

Recent findings of "E.E.G. Artifacts due to dental restorations" as reported in E. E. G. Clinical Neuropsychology 1957 9:337.339, leads me to feel this confirms a theory that I have been attempting for six years to have a scientific test made by the Dental and the Medical Professions. The enclosed paper will explain my theory and what has been done up until now.

The young lady with epileptic seizures noted in my paper told me she had gone to a Doctor who had taken frequent E. E. G. recordings and told her something was wrong in one area of the Brain "Like a hole in her head!" Now fir six years after refilling of one amalgam filling she is in perfect health. I told her six years ago I believed this filling was causing her trouble. Unfortunately I did not get a reading before removal of amalgam filling, but readings taken later, on a dozen amalgams showed no voltage over 1/4 of a volt. The fact this one tooth was very sensitive lead me to believe it was causing the trouble, which proved to be true when amalgam was replaced with cement.

The paper indicates belief that these potentials cause only waves on E. E. G. , but I feel absolutely positive the electricity of the Brain is distorted. This is what is being recorded. As you will note a small voltage applied to gums completely distorts Brain waves.

Changes of potential are necessary to create variations in waves. But as I see it the increased potential of a constant flowing Galvanic current is upsetting the thinking and emotions of thousands of people with amalgam fillings. The National Mental Health Association reports in railway and bus advertisements "More than 16 Million Americans are emotionally disturbed, that is have Mental Illness."

With such a terrible epidemic of emotional disorders in America not a moment can be wasted in finding the answer and a cure. The recent tragic suicides of such prominent men as James Forrestal, Secretary of the Navy; Robert Young, President of the New York Central Railroad; Dr. Douglas Kelly, formost psychiatrist in the United States and Dr. Theodore Sohler, psychiatrist of New Haven, Connecticut; who stabbed his wife and killed himself, leads me to believe no one is safe until the answer to mental illness is found. America's greatest peril lies not in the atom and hydrogen bomb, but in the minds of men whose thinking becomes distorted and confused.

Germany was destroyed by the neurotic mind of Adolph Hitler and a confused group of Hitler's followers. We must find the answer before it is too late. From 1949 to 1952 I wrote and visited such research organizations as the National Cancer Foundation, Yale, Harvard and the University of Pennsylvania in an attempt to interest them in the injection of collodial radio-active Isotopes into Tumors. I was told "99% of injected material would circulate out of Tumor." Three years later in the American Medical Journal July 1952 a report stated "Radioactive Collodial Gold injected into Tumore is now being used, and up to 99% of injected material remains at site of injection." Magazine Digest September 1952 reported "Hundreds of lives have been saved by this method!" But three years was lost in testing my theory.

Likewise six years have been wasted in an attempt to have a test made of my theory on tooth voltages by such organizations as the National Health Foundation, The Eastern Pennsylvania Psychiatric Research Center, The Universities of Pennsylvania, Yale, Harvard and many others. Note my comment concerning the need of a study on the effect of silver in ionizing saliva. This was first written up three years ago. I believe the change in P.H. noted in paper confirms what I have been thinking also.

I would appreciate any comment on my theory and I would be glad to loan the meter to you as soon as available and demonstrate my methods of reading teeth. At present Dr. Curtis Marshall is taking readings with this meter at Johns Hopkins Hospital, Baltimore, Maryland.

Sincerely yours,

Frederick E. Teal
Frederick E. Teal

Enclosures

THE OHIO STATE UNIVERSITY

To *Dr. Wiener:*

Remarks

If you would like the manuscript returned, please let me know. Otherwise, I would like very much to have it for my files.

RW Stacy

v2 h. x

THE OHIO STATE UNIVERSITY

NOVICE G. FAWCETT, *President*

COLUMBUS 10

DEPARTMENT OF PHYSIOLOGY
HAMILTON HALL

June 13, 1958

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

Dear Dr. Wiener:

I am very much flattered that you should consult my opinion about the proposed paper for Medical Physics. In order to deliver a useful critique, I suppose I shall have to be somewhat presumptuous. If so, please accept my prior apology.

Let me discuss first the approach used in the research described. This is a most interesting work, and I should not be surprised if it assumed major significance. Several workers have done some experimenting with autocorrelation of biological rhythms over the past few years, and I have recently become interested myself in applying it to pulse wave (arterial) transmission phenonema. Dr. Ernest Franke, Dept. of Physics, University of Cincinnati, and Dr. James Randall, Dept. of Physiology and Pharmacology, University of Missouri, Columbia, Mo., are specifically working with autocorrelation techniques.

I believe I recall that Dr. Franke has worked with electroencephalograms.

Your description of the method as analogous to the Michelson interferometer is excellent; I hope that in modifying the paper you will not abandon this device.

I believe that the paper as it now stands suffers from two or three points of view. First, it is too elementary and devoid of detail for Medical Physics. I gather that you intend to extend and modify it, so that this criticism may not apply at all.

Second, I believe you have confined yourself to too narrow a presentation. I would personally like very much to see your discussion of something like "~~Auto~~Correlation Analysis of Biological Rhythms". Within the structure of such a discussion, you could describe the brain wave work, and still provide us with a source of information on the whole approach.

Dr. Norbert Wiener
June 13, 1958
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Of course, I do not know that Dr. Glasser has not arranged for such coverage by some other author; if he has, then your description of a specific method would be fine.

Lastly, I would like to request a specific piece of information. What sources would you recommend for obtaining a good working knowledge of autocorrelation and cross-correlation theory? Those of us who are not mathematicians must dig for this sort of thing, so I will appreciate your suggestions.

An afterthought - Dr. Paul Fitts, Dept. of Psychology, Ohio State Univ., has constructed and used an autocorrelator, I believe in behavioral problems utilizing servo loop concepts. Dr. Fitts will move to the University of Michigan this fall.

Dr. N.A. Coulter and I have a project (just under way) studying transfer functions in the simple stretch reflex. I would appreciate your giving us permission to call on you for occasional advice on such a problem. We have already used your writings to a considerable extent.

I am looking forward to hearing from you again.

Sincerely yours,

Ralph W. Stacy

R.W. Stacy, Ph.D.
Professor

RWS:bab

[ans 6/19/58]

South Tamworth
New Hampshire
June 14, 1958

Mr. P. Albert Duhamel
Office of Special Programs
Boston College
Chestnut Hill 67, Massachusetts

Dear Mr. Duhamel:

I have already had a talk with Bobby Ammann and his mother, and although my impression of him is very superficial, I should hesitate to recommend putting him in a position where he will have to compete with those much older than he is. Without any doubt he is a child of high intelligence, but intelligence alone is not enough to bring him successfully through a greatly accelerated program. My impression of Bobby is that of a diffuse ability, but of no particular enthusiasms and spontaneity. Now, growing up is a tough game anyhow, and growing up as an infant prodigy is an even tougher game, and calls for a spirit of initiative and enthusiasm on the part of the child, and ability to take some pretty severe emotional bumps, a vigor in health and in feelings, and perhaps a certain degree of physical precocity which makes the boy considerably older than his chronological age. Even then an advanced training at an early age is a gamble, though there may be cases where it is a gamble which one can scarcely avoid taking. Frankly, Bobby seems to me rather on the soft than the vigorous side, and what I read of his history confirms me in this impression.

I do not set myself up as competent to give advice in these fields, and I am only doing so because my advice has been solicited. I should greatly prefer if the present communication would close my contact with Bobby's problems, and if he were put in the hands of somebody in a professional position to give advice.

Sincerely yours,

Norbert Wiener

NW:jc

South Tamworth
New Hampshire
June 14, 1958

Mrs. Charles C. Gillispie
Secretary to the Board of Editors
AMERICAN SCIENTIST
P. O. Box 703
Princeton, New Jersey

Dear Mrs. Gillispie:

I regret very much that I do not find myself in a position to review von Neumann's book, "The Computer and the Brain." As the years go on I find myself in a dilemma between attempting to continue my creative work and accepting all the tempting offers which I receive for reviews, lectures, and the like.

I hope that you will be able to understand my position.

Sincerely yours,

Norbert Wiener

NW:jc

South Tamworth
New Hampshire
June 14, 1958

Professor J. C. F. Tedrow
Department of Soils
Nichol Avenue
New Brunswick, New Jersey

Dear Professor Tedrow:

I very much appreciate your invitation for me to lecture before the Sigma Xi next year, but I am afraid that I shall be unable to accept it. The fact is that as the years go on I find outside lecturing of any sort an increasing strain and I feel that I should devote what energy I have to my own research. A request like yours is always tempting in itself, but it opens the door to many more requests, each of which has to be considered on its merits, and the acceptance or refusal of which involves a mass of decisions which I find a very great strain. I am consequently forced to write a blanket refusal for all invitations to lecture outside.

Very truly yours,

Norbert Wiener

NW:jc