Tea. Nov, 1953]

CERCLE d'ETUDES CYBERNETIQUES

Monsieur et cher Collègue,

Nous avons l'honneur de vous signaler que notre prochaine réunion, qui aura lieu le

Samedi 2I novembre 1953, à 16 h 45,

l'Institut d'Histoire des Sciences,

I3, rue du Four, Paris, 6°,

sera consacrée à une discussion sur le sujet suivant :

"DELIMITATION DU DOMAINE PROPRE A LA CYBERNETIQUE"

Nous vous prions d'agréer, Monsieur et cher Collègue, l'expression de nos sentiments les plus distingués.

> Le Secrétaire, R. VALLEE

Correspondance : SET-CERCLE D'ETUDES CYBERNETIQUES, 2 rue Mabillon - Paris (6°)

[ans: 11-17-53]

[carNox, 1953] Dear hulent sulend your me L. Bone Book. send al la Arlhur Koventhol 59 Forelea Ou MYC3 who will be meeted to read it as a possible volume they can public voleme - Er-Prodigy. Enclosed is a never monly from Bosce Books which may give you Ina che of them scope, toge al 2 km bleg de consider grather expersion in the new future. Smeet Form trail

[aus 11/9/53]

UNIVERSITY OF DENVER

(COLORADO SEMINARY)

DENVER, COLORADO

DIVISION OF COMMUNICATION

Movember 1, 1953

Dr. Norbert Wiener Mass. Institute of Technology Cambridge, Mass.

Dear Dr. Wiener:

I have no desire to seem impatient, For I know you are extremely busy. But it would be helpful to me in the preparation of the introductory material if I were able to have a title for the paper you have so kindly agreed to present at the National meeting in New York next month.

Dr. Moreno has offered a title which should provoke considerable comment, "A Sociometrist Visits Mars and Tries to Give a Psychodrama Session to the Martians."

the second sinceres.

Such as Seth A. Fessenden

Part W?

3420 FRANKLIN AVENUE RIVERSIDE, CALIFORNIA Hov, 2, 1953

my dear Dr. Wiener, I have been reading your book Ex-Prodigy, and some time ago I read such parts as I was able to of Cybernetics (I am no mathematrerang. I found these books es pecially interesting because in 1901 I studied third-year German under your father in Boston University. We all liked your father

and found him a good instructor. It is true that he had a strong foreign accent - not German, Even at that early date we all knew about you and how "weapped up in you" your father was. That made us notice the later items in the press about your schooling. We were pleased but not surprised when your father became famous. yours truly, miss Eleanorth, Chalmers Dr. Wiener told usthat he learned English on shipboard from Dickens' Christmas Carol, [uns 12/2/53]

6164.34th si. ornaha Mebr. oct nov 2 1953 norbert Wiener Professor of Mathematic M.I.T. Dear mr. Wiener What I am writing about is the popularing of Psycho- Physics. It is my believe that

the popularized defention of Psycho- Physics should belove that severe which uses optilal and E lectronic equipment to enable one to have a cent line wordless knowledge of ones our sound; rather then using this equipment saly for entertainment, mucho believe and ellusion. E ngenere, and artists lan Create new worlds of make believe and enveil the suptimes of all would of make believel. In ten flow we will be dancing to light. Bleam of the Heisenberg Principle of Indeterminancy and of neertainty these changes Cannot be accurately small by psychologists, That is the changes made, the molding and shaping of human munds by the psychologual effects of Radio (sound) T. V. (sight, sound). Mother pictures, and 3D,

3 D pretures that are motion preture leavings and discardings are psycho- Thysics genes and Pelerous municals found in referring. In the refining of ones this experience frequently hoppins. I noted of running 30 natural Vision pictures synchronized before they should be un as synchronized below. I had sequence Charts below are appermental. 43 4 5 33 43 22 32 17 21 LeRe LeRe LP Re = 1111 & olarmed lens Pietures above one tuher with me lens and shown with two. 45 4.3 3 2 Le Re LeRe LeRe about putures are taken with 2 lens and developed to be shown in about sequences with 2 lens.

I he way the above pictures are comprehended depends on the inferences the mind makes in classifying them. much of Psycho & hypics experimenting properly belongs to the mation dictive Industry. By both books and pretures results of such experiments could belome mass public knowledge. In moderning and beep pace with the future, motion Futures Con play a big part. & sycho- & hypies is necessary for educating the masses of people in tending and building automatic machines of the future, for understanding space, time, matier, Election magnetism, Flying saucers, mathematical Thilosophy and mathematics. If these 3D sequence pictures are helpfull psycho, physics well bleam popular. I thought you too might be intenstiding E spermenty with these pulmes. Jours 7 mly Welliam J. Mallory P.S. no need to answer this letter T. V. 3D alternates preture at high speed.

60 MOUNT VERNON STREET BOSTON 8, MASSACHUSETTS

November 2, 1953.

Professor Norbert Wiener Room 2-155

Dear Professor Wiener:

I have at last heard from Marquand, and alas and alack he is not well enough yet to have a meeting with us. He says he hopes to later on.

He is still recovering from a coronary, and states his condition is that of being pretty weak and tied down to his place in the country.

Cordially yours,

JHM/F

Means

FORTUNE

TIME & LIFE BUILDING ROCKEFELLER CENTER NEW YORK 20

EXECUTIVE DEPARTMENT

November 3, 1953

Dear Professor Wiener:

With our article finally off to the printer

I want to thank you again for all the time
you spent helping us get information theory
straight (I hope.)

As I reread the finished article it seems as though we achieved only a once-over-lightly; let's hope that we can return to the subject again in a few years.

(I'm rather proud of the photograph -- hope you lkke it.)

Thanks again for everything.

Frank Dello

ours truly,

Frank Bello



TRANS WORLD AIRLINES, INC.

44 SCHOOL STREET, BOSTON 8, MASSACHUSETTS, U.S.A.

November 3, 1953

Dr. Weiner M.I.T. Dept. of Physics 77 Massachusetts Avenue Cambridge, Massachusetts

Dear Dr. Weiner:

Enclosed you will find an itinerary sheet listing your confirmed reservations. On the back of the sheet you will find a list of visa and health documents required for the countries you are visiting or transiting.

Mr. Tucker is presently contacting the Indian Embassy in Washington to obtain payment for your tickets, and will be in touch with you when arrangements are completed.

Very truly yours,

TRANS WORLD AIRLINES, INC.

David W. LeBlanc Reservations Manager

DWL:mln

Massachusetts General Hospital

IN BOSTON
GENERAL HOSPITAL
BAKER MEMORIAL
PHILLIPS HOUSE

Boston 14

IN WAVERLEY
MCLEAN HOSPITAL
W. FRANKLIN WOOD, M.D.
DIRECTOR

IN LINCOLN STORROW HOUSE (CONVALESCENTS)

BURNHAM MEMORIAL FOR CHILDREN HALL-MERCER HOSPITAL HUNTINGTON MEMORIAL HOSPITAL VINCENT MEMORIAL HOSPITAL

DEAN A. CLARK. M.D. GENERAL DIRECTOR

Nov 4 1953

Dear Norbert:

Thank you very much for correcting the original typescript of your remarks at the International EEG Congress. These are so important that we wanted to be sure they were published correctly. I enclose a re-typing in case you would like to check it once more. There is a word on page 19 that the typist could not get.

Very sincerely,

Mollie Braner

New York City 17 4 Nov. 1953 Dear Dr. Wiener: Some time fter completing my perhaps too-hasty letter to you dealing with OE and UQ as two independent components of "intelligence", I happened on Bentley's study of superior children, and there found reference to the use of the tetrad equation by one Charles Spearman of the Univ. of London, and his findings which appear to have antedated my own theorizings by many years. I recall that when I outlined my contentions to Dr. W.H.Sheldon, he became enthusiastic and said (among other things) that what I called OE was "a brilliant insight into the Spearman g factor": but at that time I had never heard of Spearman or his work. This I must emphasize, because otherwise you might justifiably assume that I was merely trying to palm off Spearman's discoveries on you as my own. So far as I can see from Bentley's survey of the Spearman theory, the g factor does correspond closely to what I called OE or original endowment -physiological and genetically determined, constant through life in any single individual, varying widely from one individual to the next. But se far as I know, the resemblance between Spearman's discoveries and my hypothesis ends there. I cannot see that UQ or usage quotient closely approximates Spearman's s, w or c, or that it can be deduced from any immediately obvious combination or function of any of them. The problem of isolating the g-factor or OE (whatever it really should be called) may therefore be attacked by some or all of the following methods: (1) Correlations of the type found by Spearman; (2) Exacting studies of the same individuals in and out of these so-called high usage periods, whether the latter are induced by a test situation or by biochemical means; (3) Brain-wave studies in the same context; (4) Rorschach studies. I note that Henri Poincaré described a high-usage period in his FOUNDATIONS OF SCIENCE, p. 394. (Science Press; 1946 ed.) Doubtless other such references could be found in the literature; but looking for them is not going to prove anything except that some few individuals of genius were introspective at certain times. It is still an unanswered question in my mind whether 'spontaneous' high usage periods occur in people of TQ below about 135; but the possibility of biochemically inducing them seems a much more promising one. I heard your lecture on physics and medicine this evening over WNYC-FM. Beautifully done and thought-provoking indeed; but I can't help thinking that too many listeners are simply going to return to their practice and forget entirely about the questions you brought up. Is it, perhaps, that in most minds a new thought simply is interpreted as a cause of disequilibrium, and that (pardon me!) "homeostatic" processes ensue which tend to return those minds as quickly as possible to their former equilibrium? Freud's own reaction to the Sheldonian system would seem to have been of this kind, e.g. (Vars. of Delinquent Youth, pp. 49-50.) May I hear from you before too long? Sincerely, Walter Breen [ms 11/4/53]

Box 1024

Dear Professor Wiener,

We have heard from Professor Harry Wolfson of Harvard University that you intend to spend a short time in Israel on your way to India next month.

It is a great honour and pleasure to me to extend to you on behalf of the Hebrew University a cordial invitation to deliver a guest lecture at the University during your visit here. We sincerely hope that it will be possible for you to accept it. If so, I shall be grateful if you will be good enough to let us know the date and topic of the lecture so that we can make the necessary arrangements in advance.

I feel sure that our mathematicians, physicists and philosophers alike will be greatly interested in your lecture and that they will be very happy, as well as the other members of our academic staff, to make the acquaintance of such a distinguished scientist like yourself.

positive reply,

Looking forward to your

Sincerely yours,

B. Mazar President

AEROGRAMME

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



העולח- EXPEDITEUR - העולח

The Hebrew University,

Jerusalem,

Israel.

INSTITUTE FOR THE UNITY OF SCIENCE American Academy of Arts and Sciences 28 Newbury Street Boston 16, Massachusetts

November 4, 1953

During the academic year 1953-54 the Institute for the Unity of Science will continue to sponsor monthly discussions on topics of pertinence to the integration of knowledge by scientific methods. At the first of the General Seminars this fall, the discussion leader will be:

> HERMANN BONDI, M.A. Fellow of Trinity College, Cambridge; Lecturer in Mathematics, University of Cambridge; and this fall lecturer for the Lowell Institute in Boston and the Harvard College Observatory.

TOPIC: The Hypothesis of Continuous Creation and the Laws of Physics

TIME: Tuesday evening, November 17, 1953, at 7:30 p.m.

PLACE: Harvard Faculty Club, Quincy Street, Cambridge

You are cordially invited, and you may bring a guest if you desire.

If you wish to be on the mailing list for subsequent announcements of the Institute, please return the enclosed postal card to the Institute at the American Academy of Arts and Sciences, 28 Newbury Street, Boston 16; and indicate any necessary improvement in our mail address for you. Please let us know also the name and address of any colleagues whom you desire to have added to the mailing list.

The Institute is cooperating in the planning of the Conference on the Validation of Scientific Theories to be held in Boston December 27-29 under the sponsorship of the American Academy of Arts and Sciences and the National Science Foundation. There will be five symposia:

- 1) The Reason for the Acceptance of Theories
- 2) Psychoanalysis and Scientific Method
- 3) Science as a Social Phenomenon
- 4) Interpretations and Misinterpretations of Operationalism
- 5) Organism and Machine

Detailed announcements of this will be mailed to all on the mailing list in a few weeks.

Program Committee

Phillip Frank, Chairman Gerald Holton Percy Bridgman Ralph Burhoe Carl Hempel

Roman Jakobson Philip LeCorbeiller Walter Rosenblith

Harlow Shapley B. F. Skinner Stanley Stevens



November 4, 1953

Mr. Anthony Boucher
The Magazine of Fantasy and Science Fiction
2643 Dana Street
Berkeley 4, California

Dear Mr. Boucher:

Do you have an extra copy of the manuscript of the Miracle of the Broom Closet? We have no copy here in the office, and Professor Wiener would like one for reference.

Would it be possible for you to send us a copy?

Yours very truly,

Mrs. James Cole, Secretary to Professor Wiener

DOVER PUBLICATIONS, INC. 1780 BROADWAY at Fifty-Seventh Street NEW YORK 19, N. Y. COlumbus 5-7988 November 5, 1953 Prof. Norbert Wiener Department of Mathematics Massachusetts Institute of Technology Cambridge 39, Mass. Dear Prof. Wiener: Thank you for your letter of October 7 concerning Lotka's ELEMENTS OF PHYSICAL BIOLOGY.

I do hope you will take advantage of our offer to send you some complimentary books.

Sincerely, DOVER PUBLICATIONS, INC.

> Hayward Cirker President

hc/gs

Charlotte Memorial Hospital Nurses Resident 11 Charlotte, North Carolina November 5, 1953

Professor Norbett Wiener, Department of Mathematics, Massachuetts Institute of Technology, Boston, Massachucks.

Dear Professor Wiener:

I am a student Nurse At Charlotte Memorial Hospital in Charlotte, North Carolina. In my Psychology class I am to give a report on Cybernetics. I have read many articles and your two books on the subject but wondered if you had any other information that I could use. This report is to be oral and discussed. Any papers or pany type literature would be greatly appreciated.

Thank you.

Your truly. Miss) Joyce Lee Cary 11/9/53)

Brofessor Wiener, (3) 11-5-53 occupations? The two most important things May I have a copy of the the ordinary man does in his life lecture that you delivered at the yew is to shoose his wife and his occupation york academy of Medicine last night Hey can be changed later on, tis true, on "Physics and Medicine"? I was listen money and stamina. To do so one ing to situ over WNYC when company camer must overcome his inertia and equilibrain to her you were half way through. I It's not easy. Perhaps some day bush men called up the new York academy of as Johnson & Connor of n. Y. and PN. Paul nedicine but they informed me that they Pokaneau of I. a. can help us solve will not publish it until sometime next summer. I admire the ease and simplisty there problems in advance - at least to a reasonable degree. Thank you! Sincerely yours. with which you explain new and difficult subject matter you try Thomas J. Young to make things understandable and 8538 101 Street interesting and thus encourage Richmond Hill 18 and invite people to become ford Cans (1/2/53). New York City

Page But I suppose that the solution of intellectual pursuits. Many offe to the education problem is to have my professore in college either thru a Johnson O'Connor on the college enoblishness or lack of bedagogual entrance boards to channel the Capacity seemed to make their subjects applicante into theirsproker grower formidable and awsome I know a teacher must make a student learn by means of a batch of afstitude tests. My Ild high School principal. to think for hinself that does not mean that he should deliberately used to say I won like to do someor stupidly put hurdles and students booky traps in the path of his thing and that something comes lasy to you then that's the field nature destaned you for Perhaps the two intellectual pursuits. Il ancient as together. Others say that a boy Greeke teachers thought their who can seas the college entrance from purpose in education was to should be able to decide for himself pass on knowledge to the future on a profession. Then why are there generational like the baton pursed so may frustorated unhappy failures on from runner to runner in their medicine, engineering, accounting teaching, selling and numerous other! relay racer.

November 5, 1953

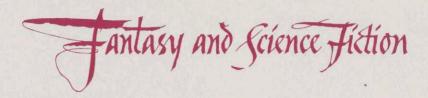
Dr. Henry A. Babcock 650 South Grand Avenue Los Angeles 7, California

Dear Dr. Babcock:

Professor Wiener does not have an extra copy of the manuscript of his talk on the "Theory of Prediction," given at the University of California on October 19. He is, however, now editing the talk for publication, since the university intends to bring out in book form all the lectures given in the "Mathematics for the Modern Engineer" series. This book will appear in the spring or early summer of 1954.

Yours very truly,

Mrs. James Cole Secretary to Prof. Wiener



ANTHONY BOUCHER AND J. FRANCIS MCCOMAS, Editors 2643 DANA STREET, BERKELEY 4, CALIF.

Nov 6 53

Mrs James Cole Secretary to Prof Wiener Dept of Mathematics Massachusetts Institute of Technology Cambridge 39 Mass

Dear Mrs Cole:

In answer to your query of Nov 4:

We never did have the MS of "W Norbert's" MIRACLE OF THE BROOM CLOSET---just tearsheets from the TECH ENGINEERING NEWS, & those we sent to the printer some time ago.

The storyes now in type (for our Feb issue, out in early Jan); so I'd suggest you write to our managing editor:
Robert P Mills
Fantasy House
570 Lexington Ave
N Y 22
& see if he can furnish you with either proofs or the original tearsheets.

Or can't the TECH ENG NEWS dig up a back issue for you?

Hope everything works out smoothly.

With cordial regards to Prof Wiener, whom I hope to see again next time his lectures bring him out here,

Sincerely,

Anthony Boucher

AB:hhh

BOSTON UNIVERSITY SCHOOL OF MEDICINE 80 EAST CONCORD STREET BOSTON 18, MASS. DEPARTMENT OF ANATOMY November 7, 1953 Dr. Noren Wiener Massachusetts Institute of Technology 77 Massachusetts Avenue Boston. Massachusetts Dear Dr. Wiener: I am writing to inquire whether you might be willing to address the Boston University Chapter of Sigma Xi, at its first meeting scheduled for Thursday, December 10th at 8 o'clock. Ever since I was elected as president of this organization, I have had but one consuming idea in mind and that is that you, Dr. Wiener, should be the speaker for the occasion. I find that everyone in our group is highly enthusiastic about the possibility. The subject could be of your own choosing but a lecture on the general field of "Cybernetics" would be of absorbing interest to all. We have a membership of about 150. The room we have reserved is at the Boston University campus on Commonwealth Avenue and has a seating capacity of close to 300; these will be filled, I am sure. The society has the means to pay a token fee of \$50 which we hope you will be willing to accept. I sincerely hope you will be able to accept, Dr. Wiener. Having you will start our newly organized national chapter off on the right foot and establish a precedent difficult to surpass in the future. With my sincere and high personal regards, I am. Very truly yours, Arthur M. Lassek, Ph.D., M.D. President, Boston University Chapter of Sigma Xi AML/la [aus 11/9/53]

JANET MACKENZIE RIOCH, M. D. 17 WEST 54TH STREET NEW YORK 19, N. Y.

nov. 7, 1853

Dear Dr. Wiener, It was a pleasure to see you again and to hear the good news, both about leggy and the book and also about your forth coming trip to India. With regard to the latter, I should like to reaffirm my feeling that there should be a break in your itemerary. as I read it over, it seemed to me that the appropriate break (of two days) should occur between the visits to Madras and Calcutta. If you can take care of some of the Bombay work during your first week in India, it should be possible. to defer your final arrival in Bombay to the 30th rather than the stated 25th This would give you the possibility for two days of rest during the rather stremmer Minerary that has been planned. I am thurking of this, as much from the standfourt of permitting yourself a little time to assimilate all the multiple impressions of this great country, as also from the standfound af protecting yourself from under street. at least in India, if nowhere else, one should be respected for the desire to have a couple of days for quiet contemplation, totally devoid of interruptions, in a quiet hotel, with weals served in the room. This should be obtainable in Madras and most certainly in Calcutta. I thuik madras would be pleasantes. With very kuidest regards, Janet Rock.

Cher Professon Wiener.

Je sui persu a de que en connaissures en français vous permethont trosfacilement de compron dre ma lettre Jen ai en la preuve lors des traductions si rapides que vous en q feits an Baker House en juillet -... J'ai conserve de ces contacts un hallant souvenir. D'ailleurs a Saintific american va- je pensepublic biantil sur arbible kompas exactement de a que van avig tradicit brai le publisher Mr. Jerard Vi'cl pr'a damende un artide pless rulgarise pur Bortholot: sa vir et son olevre. Vai en la drance de rensontier à Paris le donnée fils sansévant de notre grand che miste. Mr. Rene Berkhelet ; par'es opre, åg 'a 81 am. d'artich ut e'uit et envege'. Hon séjour aux V. S. A s'est their perse'et acheré - sauf qu'une partie de mon tojnir å elle gå tel par un mathemens for a his kulomeny (Shingles:). Y'ai he ava em vif c'uterêt votre livre (an tobe apraphie) -I'y ai constaté que votre carrière prostégionse le revent sorsante à alle le cortains le un grends sevants parçais (notamment alle de Berkedet lort je un suis occupe "re'comment). A dragen pag j'ai reconau compai votre culture it ait autant europe'enne qu'americaire Votre espit l'indépendances et votre april retionnaliste s'apparentent a' che h ugulle de savants face; ais. Vos liques relatant votre ascendance juive es out vive mont into'ressé. Certes - comme je mes l'ai dija dit verbalement -

ma conception dans le domaine religioner n'est pas i destique a la votre. Mes mathématicien français H. Vornicare'a dit: « On doit se filiation qu'il y sit des hommes des Ecôles de la barrico de, lossque ce sont des hommes d'une atsolère bonne foi .n. Je re nom du mon invitation si vans vanaride à l'aris. Venilly agreer, oher Professen Wiener. avec mon meilleur sourceir l'appenière de mes sentiments de vaies Uneify M. Dreyfer. professeur au lysée Voltaire 68 pue Vi lien al' Iste Adam Paris 20 (MEN 45-13) Je ser ais très herreux de vous lere - en angleis!

[ans 11-17-53]

ARMOUR RESEARCH FOUNDATION OF ILLINOIS INSTITUTE OF TECHNOLOGY TECHNOLOGY CENTER, CHICAGO 16

November 9, 1953

GENERAL OFFICES

IN REPLY REFER TO:

Prof. N. Wiener Massachusetts Institute Technology Cambridge, Massachusetts

Dear Sir,

Would you kindly send me a reprint of your article

A New Form for the Statistical Postulate of Quantum Machanics

which appeared in

Phys. Rev. 91, 1551, 1953

Thank you.

Very truly yours,

J. S. Miller

Thomas L. Gilbert Associate Physicist

11-18-53

9 November 1953 Dr. Norbert Wiener Massachusetts Institute of Technology Cambridge, Massachusetts Dear Dr. Wiener, I am an Air Force officer currently undertaking graduate work in industrial engineering at the Ohio State University. For some time, I have tried without success to locate a copy of your paper, "The Future of Automatic Machinery". Do you possibly have any reprints available? If so, would you be so kind as to forward a copy and enclose your bill. Thank you very much for your assistance. Sincerely, Major, USAF 1520-20 W. 6th Ave. Columbus 12, Ohio

11-13-53

EDUCATION DEPARTMENT EMBASSY OF INDIA

Total Range

2107 MASSACHUSETTS AVENUE, N. W. WASHINGTON, D. C.

F.17-15

November 9, 1953

Dear Professor Wiener,

As Professor M. S. Sundaram is away in India on home leave I am writing this to acknowledge your letter dated October 27, 1953.

Your wishes regarding official visits during your stay in India have been conveyed to Government and I am sure they will try their best to meet them.

So far as travel arrangements to India are concerned the normal practice, as laid down by Government for all official guests, is for the Travel Department of this Embassy to make all arrangements so that our guests are not put to any inconvenience. As the TWA have not yet contacted us, I am requesting our Transport Officer to book for you a passage from New York to Paris on a TWA plane on or around December 15 as suggested by you in your letter of July 24, 1953. If you wish to leave the United States at a later date, kindly let me know.

As for your travel arrangements from Paris to Bombay, because the Government of India heavily subsidize the Air India International, it is their practice to request their official guests to patronize it. Although not as fast as the comets, this service is equal to any commercial line which now operates between London and Bombay. I should like to assure you that like our other official guests, you will be absolutely comfortable on the Air India planes and would enjoy the service that will be offered.

While, therefore, it is the earnest wish of the Government that you may please patronize this line, if you have an unalterable preference for the TWA, I will instruct the Transportation Office of this Embassy to make arrangements according to your desires.

Kindly write to me at your convenience.

Yours sincerely,

(R. K. Kapur) Educational Attache

Professor Norbert Wiener, F.R.S.
Massachusetts Institute of
Technology
Cambridge, Massachusetts

Dear Professor Wiener:

As Professor M.S. Sundaram is away in India on home leave I am writing this to acknowledge your letter dated October 27, 1953.

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Kindly write to me at your convenience.

Yours sincerely,

Sd. R.K. Kapur Educational Attache

Professor Norbert Wiener, F.R.S., Massachusetts Institute of Technology, Cambridge, Massachusetts.

November 9, 1953

Sir Shanti S. Bhatnagar Secretary to the Government of India New Delhi, India

Dear Sir Shanti:

I have your programme for my stay in India at hand. To me it looks mighty formidable, and I should particularly be glad if somewhere in the middle of the trip it were possible for me to have four or five days at some pleasant place to recuperate and be in condition for the second half of the programme.

I shall arrive in Bombay on the morning of December 24, and leave on the afternoon of February 5. In view of this, I hope perhaps it might be possible to transfer my Bombay trip to the beginning, and to use the time thus saved to give me a rest halfway through.

Anything you can do to help ease what will be a very enjoyable but tiring programme I should appreciate tremendously, and I should rather have the schedule changes planned in advance, rather than to have my health break down and be forced to cancel arrangements when on the trip.

Sincerely yours,

Norbert Wiener

NW: bbc

November 9, 1953

Mr. Walter Breen Box 1024 New York 17, N. Y.

Dear Mr. Breen:

Professor Wiener has asked me to write to you and tell you that he would very much like to see you and talk to you some time-perhaps you will be making a trip to Boston sometime in the near future and could stop in at his office. He will be in India from December 19 to February 6, but if you would care to make an appointment for any other date, he would be glad to see you.

Yours very truly,

Mrs. James Cole, Secretary to Professor Wiener

17 novembre 1953

M. Dreyfus, professeur au lycee Voltaire 68 Rue Villiers de l'Isle Adam Paris, France

Cher M. Dreyfus:

Je me souviens tres bien de votre visite a mon ecole pendent l'ete. Il me plait beaucoup a apprendre que vous avez pu trouver un editeur pour vos remarques sur Berthelot. Quant a moi, je viens de completer la premiere version de mon livre autobiographique, et j'ai trouve un editeur pour le seconde volume. Il va apparaître chez la maison tres bien connue de Doubleday.

Le dix-neuf Decembre je serai en route aux Indes. J'arriverai a Paris le vingt Decembre et je resterai la trois jours. Je me chercherai in chambre dans l'Hotel d'Angleterre, Rue Jacobe, et j'espere, cher collegue, d'avoir l'occasion de remouveler notre connaissance.

Mes meilleurs souhaits a Mme. Dreyfus et a Mlle. votre fille, qui a sussi heureusement fait son baccalaureat.

Avec l'expectation de causer avec vous, et a dire les nouvelles de Boston, je me sousigne, votre bien devoue,

Norbert Wiener

NW: bbc

Tans 12-5-53

November 9, 1953

Mr. Larry Frank 72 Perry Street New York 14, New York

My dear Frank:

Many thanks for your interest in my book. I have good news for you--it has finally been accepted by Doubleday.

I am busy now on the new treatise on cybernetics, but after my trip to India, when the work begins to slack off, I shall turn back to the autobiography, and I believe that in six good weeks work I can make the manuscript acceptable to the publishers and to myself.

Many thanks again for your interest.
Sincerely yours,

Norbert Wiener

NW: bbc

17 novembre 1953

M. E. R. Freymann Hermann et Cie. 6, rue de la Sorbonne Paris V, France

Cher M. Freymann:

Cette lettre n'est qu'a signaler que je passerai par Paris en route aux Indes entre le vingt et le vingt-deux decembre de cette annee. j'espere pouvoir trouver in chanbre dans l'Hotel d'angleterre, rue Jacobe, et si vous voulez causer avec moi, vous pourrez me trouver la. S'il y a des amis qui me voulez voir, je serai tres heureux a employer cette occasion en causant avec eux.

Je n'ai pas ectit a mes amis les mathematiciens de Paris mais parce que votre librairie est le centre de Paris scientifique, je suis sur que tous entendront les nouvelles de mon arrive.

Bien a vous,

Norbert Wiener

NW:bbc

November 9, 1953

Dr. Julius Jensen Southern Nevada Memorial Hospital West Charleston Boulevard Las Vegas, Nevada

My dear Dr. Jenson:

I shall send you a bibliography of various papers about cybernetics. I am afraid, however, that I can't give you very much hope about a non-mathematical appreciation of cybernetics, because the essential ways of thought are mathematical.

and to penetrate some of the ideas in a less mathematical way, but I don't consider that there is much hope of making effective progress without a pretty thorough mathematical understanding of the subject. It is the old problem of the Greeks — there is no royal road to mathematics, and I am afraid I can offer you little but cold comfort.

Sincerely yours,

Norbert Wiener

NW: bbc

November 9, 1953

Dr. Arthur M. Lassek
Boston University School of Medicine
80 East Concord Street
Boston 18, Massachusetts

My dear Dr. Lassek:

On December tenth I will be very nearly on my way to India to lecture for six weeks. While I will technically be at home on that date, I shall be so occupied with preparations that I cannot undertake any formal engagements.

Moreover, I am making a definite effort to withdraw from lecturing, as I find it consumes irreplaceable time needed for my own research.

I hope you will understand the situ-

Sincerely yours,

Norbert Wiener

NW:bbc

November 9, 1953

Miss Joyce Lee Charlotte Membial Hospital Nurses' Residence No. 1 Charlotte, North Carolina

My dear Miss Lee:

I enclose a number of reprints of articles on cybernetics and related subjects which I hope may be of help to you in your project. I'm sorry that I haven't time at the present to write you in greater detail.

Sincerely yours,

Norbert Wiener

NW: bbc

November 9, 1953

Dr. B. N. Prasad Lakshmi Niwas George Town Allahabad 2 India

My dear Dr. Prasad:

I suggest that my popular lecture be on "The Nature of Causality" and that my technical lectures be two in number, one on the mathematics of time series, and one based on the work which Dr. Siegal and I have done on the bases of quantum theory.

I am counting on a very interesting trip to India.

Sincerely yours,

Norbert Wiener

NW: bbc



November 9, 1953

Mr. James Rollbuhler, President Nu Delta of Phi Mu Delta 460 Beacon Street Boston 15, Massachusetts

Dear. Mr. Rollbuhler:

Professor Wiener regrets that he will be unable to attend the Faculty Open House on Sunday, November 22, 1953, because of a previous engagement.

Yours very truly,

Mrs. James Cole, Secretary to Prof. Wiener

November 9, 1953

Miss Lucy J. Smoot 4011 Baltimore Avenue Kansas City 11, Missouri

My dear Miss Smoot:

It is delightful to hear from old friends of my father's. As a matter of fact, I am learning a great deal about that period in Kansas City which was, of course, before my own birth, and about which his conversation had given me only a rudimentary picture. Some day I hope to work up all the material for his biography.

As to John Dewey's children, I have known several of them, although I am not certain as to which generation of his family them belong. The impression I had of them was of ability without discipline, and the final news of their careers was what you might expect-they were sensitive and intelligent, but never accepted the clean-cut, positive work which one would have wished for them. It may not have been an accident that drove them this way, but the fact that their father's revulsion from external orders and external control went so far that they did not have sufficient experience of the kindlier discipline of the home to take the harsher requirements imposed so inexorably by the outer world. They were, in fact, among the first young people I have known who were types of the present generation in which IQ's are valued highly and the selfcontrol necessary to make good on them is not valued at all. I am afraid that I am only ih a very qualified sense an advocate of what has come ato be known in the educational jargon of the May as Modern Education.

Sincerely yours,

Norbert Wiener

November 9, 1953

Charles B. Stoll, Associate Editor John Wiley and Sons, Inc. 440 Fourth Avenue New York 16, New York

My dear Mr. Stoll:

Dr. Sholl's program seems simply to show the development in the direction of concreteness which every book should go through in writing. I think he is doing an interesting job, and I would encourage you to take it up as I did in the beginning.

Sincerely yours,

Norbert Wiener

NW: bbc

November 9, 195

Mr. Thomas J. Young 8538 101st Street Richmond Hill 18 New York, New York

My dear Mr. Young:

Many thanks for your letter of the fifth of November. Letters like that are always appreciated when received, even when the recipient is unable to find the time to answer in any detail.

I have no extra copies of my talk at the Academy of Medicine, and can only suggest that you wait until it is published.

Yours very truly,

Norbert Wiener

NW: bbc

HILDE BRUCH, M. D. 103 EAST 84TH STREET NEW YORK 28, N. Y. REGENT 7-0698 November 10, 1953 Dr. Norbert Wiener Massachusetts Institute of Technology Cambridge, Massachusetts Dear Dr. Wiener: I had intended writing to you early this spring, as soon as I finished reading Ex-Prodigy. I was particularly impressed by your moving description of the experiences of a child who becomes, in a way, the executive organ of his parents' ambition. Without having known anything about the tragic fate of Sibis, I had reacted with similar strong emotion; to the article "You Can Make Your Child a Genius" which appeared in the New York Sunday editions. There are never enough explanations why one does not write. I am writing today to ask your permission to refer to your book Ex-Prodigy in a paper that I plan to present to the meeting of the American Orthopsychiatric Association. The title of my paper is "Parent Education or the Illusion of Omnipotence". Your description of your own childhood and those of the other Wunderkinder deals with the effect of parental ambitions, concerning intellectual development. It has been my observation that the present fashion of telling parents how to educate their children towards emotional health has fundamentally similar consequences, namely that the child comes to think of himself as a product of his parents' more or less expert manipulation and not as a being who grows out of his inner potential. In the way of introduction I should like to tell you that I am a practicing psychoanalyst in New York City with special interest in Child Psychiatry. I am also a friend of Dr. Janet Rioch, whom you mention in the introduction to your book. Sincerely yours, Hild Brund Hilde Bruch, M.D. HB: amg [ans 11/16/53]



VETERANS ADMINISTRATION



WASHINGTON 25, D. C. November 10, 1953

YOUR FILE REFERENCE:

New York 1, N.Y.

• Professor Norbert Wiener
Massachusetts Institute of Technology
Cambridge, Massachusetts

Dear Professor Wiener:

A session on "Communication Aids for the Blimt" will be held at the 120th Meeting of the American Association for the Advancement of Science on December 28, 1953, in Boston. The enclosed program notes and proposed press release describe in detail the nature of this forthcoming meeting.

We should be honored if your schedule permits you to attend this meeting.

Very truly yours,

EUGENE F. MURPHY

Acting Chief, Research and Development

Division

Prosthetic and Sensory Aids Service

Encl.

copy of program notes copy of proposed press release

Tans 11/16/53]

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE 120th Meeting

COMMUNICATION AIDS FOR THE BLIND 9:30 A.M. MONDAY, DECEMBER 28, 1953

ROOM E, MECHANICS BUILDING, HUNTINGTON AVENUE, BOSTON, MASSACHUSETTS

Botter ways for the blind to read, walk, and communicate will be discussed by research authorities in the field at a symposium on Communication Aids for the Blind to be held at 9:30 A.M., December 28, in Room E, Mechanics Building, Huntington Avenue, Boston, Massachusetts in conjunction with the 120th Meeting of the American Association for the Advancement of Science.

This symposium will highlight demonstrations of experimental developments in travel aids for the sightless and will present current trends in research, according to Dr. Eugene F. Murphy, in charge of development efforts in prosthetic and sensory aids for the Veterans Administration. Prof. J.B. Wiesner, Director, Research Laboratory of Electronics, Massachusetts Institute of Technology, will preside at this session, cosponsored by the Engineering, Medicine, and Psychology Sections of the American Association for the Advancement of Science.

Of particular interest will be reports on recent research on stepdown and obstacle detectors to enable the blind to detect street curbs, buildings, and other hazards. Because the stepdown detector has long been considered particularly important, continued research will be necessary to overcome many problems, Dr. Murphy explained. Dr. Clifford M. Witcher, Staff Member, Research Laboratory of Electronics, Massachusetts Instituto of Technology, will demonstrate a novel optical principle which eliminates errors due to arm swing and body motion during walking. Dr. Witcher will also explain how recent developments in communication offer ways to overcome psychological difficulties proviously encountered in coding information from guidance devices and reading machines for the blind for transmission to the brain through other senses such as touch and hearing.

Results of tests on an earlier Signal Corps obstacle detector and current efforts on an improved model using transistors and other new components, will be presented by Thomas A. Benham, Assistant Professor of Physics, Haverford College.

Historical models, including an actual sample of Louis Braille's work, will provide a background for a discussion of communication by braille and recorded voice by Edward J. Waterhouse, Director, Perkins Institution for the Blind, Watertown, Massachusetts.

Mr. Waterhouse will consider recent technical developments and future possibilities in reducing the bulk and cost of embossed manuscripts, Talking Books, and other recordings.

Discussion will be opened by Wallace E. Frank, Chief, Bioengineering Section, Franklin Institute Laboratories for Research and Development, designer of an electronic cane for the blind and

AAAS Meeting (continued) projection magnifier to enable the partially sighted to read books and newspapers.

Historical and experimental models as well as those currently in use will be available for inspection.

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE 120th Meeting COMMUNICATION AIDS FOR THE BLIND 9:30 A.M. MONDAY, DECEMBER 28, 1953 ROOM E, MECHANICS BUILDING. HUNTINGTON AVENUE, BOSTON, MASSACHUSETTS Joint Session of AAAS Sections I (Psychology), M (Engineering), and Nm (Medicine), arranged by Eugene F. Murphy, Acting Chief, Research and Development Division. Prosthetic and Sensory Aids Service, Veterans Administration. JEROME B. WIESNER, Director, Research Laboratory of Electronics, Massachusetts Institute of Technology, Presiding. 1. Communication by Braille and Recordings, EDWARD J. WATERHOUSE, Director, Perkins Institution. (Demonstrations, 20 min.) Historical development of raised printing; limitations of embossed printing emphasized by communication analysis; braille as a code; problems of bulkiness; recent technical developments and future possibilities for braille production and storage; Talking Books; office dictating machine records; problems of economics and bulkiness; role of volunteers; speech compression and other possible improvements in recordings. 2. Communication Aspects of Visual Prosthesis with Application to Stepdown Detection. CLIFFORD M. WITCHER, Staff Member, Research Laboratory of Electronics, Massachusetts Institute of Technology. (Demonstrations. 25 min.) Analysis from the viewpoint of communications theory, of the limited performances of prior attempts at reading machines and obstacle detectors; speed of transmission of information limited by the device, the code used, the sensory channel and the brain; problems in selecting mechanically rather than mentally only the key information needed; application to design of an optical and electronic stepdown detector which is silent until danger appears. 3. Recent Development of Travel Aids for the Blind. THOMAS A. BENHAM, Assistant Professor of Physics, Haverford College. (Demonstrations, lantern, 25 min.) Tests of Signal Corps electronic obstacle detector for determining distances to walls and for detecting stepdowns by noting changes in slant distance to the ground; erros due to arm swing and body undulation; preliminary designs of optical and electronic systems for improved detectors; improved photocells, batteries, and transistors; psychological and communications problems in presenting the output in useful form. 4. Discussion, opened by WALLACE E. FRANK, Chief, Bioengineering Section, Franklin Institute Laboratories for Research and Development, designer of electronic cane for the blind and projection magnifier for the partially sighted. 5. Opportunity to examine models. P-502 10/53

November 10, 1953

Mr. Seth A. Fessenden
Division of Communication
University of Denver
Denver, Colorado

Dear Mr. Fessenden:

Professor Wiener says that he has not agreed to present any paper at any meeting in New York next month, and he would like to know what this is all about.

Yours very truly,

Mrs. James Cole Secretary to Professor Wiener

[come 11/13/53]



November 10, 1953

Marie Hourwich-Kravitz 340 E. 63rd Street New York, New York

My dear Mrs. Kravitz:

I am llways glad to hear from friends of my father, and I want to thank you for your kind remarks about my book.

Sincerely yours,

Norbert Wiener

NW:bbc

W. H. Crodner, 1403 W. 310 St

Durango, Colorado November 11, 1953

Professor Norbert Wiener C/O Mass. Institute of Technology

Dear Mr. Wiener;

Curiosity prompts me in turning the hands of time back the proverbial three score and ten years when a slight scholarly Russian refugee by the name of Wiener came into our home and our friendship.

When I was about ten years old father took me on a four or five mile wagon trip to buy some peaches from an old German who owned a small limestone covered farm, but he raised good peaches on it. As we were starting for home a man staying with the German asked if he could ride to the town of Cedar Vale which father's farm adjoined on the north. Our passanger was wearing a pair of missmated shoes showing much wear from a lot of walking, and his clothes were in keeping with the shoes Father was a man who liked people, a limited schooling had not dimmed his natural inquiring mind and an enjoyed conversation with educated and traveled men, so he soon learned that the man's name was Wiener and that he was of Russian nationality, and if my memory is correct he had escaped from Siberia?.

Father's farm had been homesteaded from the Osage Indian lands near the Indian Territory in south eastern Kansas, some fifty miles to the nearest railroad at that time: farm help was paid from eifgt to twelve dollars per month with board in those days; brawn was required rather than brains, so it was hardly a vocation for gentle scholary man whom we learned to like so well as we knew him better. Father was so impressed with his intelect and personality that he invited him to come with us and stay until suitable work could be found for him, which was soon done with a Norwegian neighbor.

Mr. Wiener was frequent and most welcome visitor at our home, and we learned of his interesting journeys through the countries of Europe, of his speaking many of their languages and dialects, and that he had came to the United States by way of Central America and Mexico; how he had worked at most every kind of hard labor even on section railroad jobs in the Gulf States.

There is much that I could write about my memory of this most remarkable man He gave us good bye one day and left, the next we had any news about him he was selling fruit from a push cart in Kansas City, and being a student in his spare time at the public library, where he attracted notice of influencial persons and become a teacher of languages and history in a Kansas university. Then he came back on a visit with us, a quite distinguised looking men in black brodcloth and wearing gold rimmed glasses ... Our old friend who remembered us when his days of struggle and hardship were over. A now - Professor Wiener on the way up the ladder of success in the land where he had came as a poor emigre. Nothing had been handed to him on a silver platter, but a courage and faith had been born in him along witha brilliant mind which surmounted all obsticles.

This letter - a long delayed one, as I have read your name many times and have the feeling that you are the son of - the Mr. Wiener we knew in those years so long gone. I trust you will bear with the mistakes one of past eighty years may have made in it.

Yours Very Truly (Gracker 140,3 West and. Jus answ. Fro.

DOUBLEDAY & COMPANY, INC., Publishers 575 MADISON AVENUE, NEW YORK 22 ~ MURRAY HILL 8-5300 November 11, 1953 Dear Professor Wiener: I have just come from editorial meeting where we discussed a contract for the second volume of your autobiography. It was suggested that we offer an advance of \$2,000, payable half on signing and half on completion of the manuscript, against a regular royalty scale of 10% to 5,000, $12\frac{1}{2}\%$ to the next 5,000 and 15% thereafter. This will be the usual Doubleday contract granting us all rights in the work, and I hope that the terms are satisfactory since I would love to have the chance to work with you on the book, which I have now seen and have very high hopes for. Won't you please let me know as soon as possible how this suits you so that we can get the contract underway. In the meantime, I am about to return THE HUMAN USE OF HUMAN BEINGS to you, but I want a few more days with it before I do 80. Sincerely yours, Professor Norbert Wiener Department of Mathematics Massachusetts Institute of Technology Cambridge, Massachusetts JE:nr [ans 11/16/53]

DEPARTMENT OF PHYSICS

November 11, 1953

Dear Dr. Siegel:

I have been reading with interest she paper

"A new form for the statistical Postutets in quantum
merhanies" that you and Professor Wiener published
in the September 1953 issue of Physical Reviews. I
whall he pleased if you can read me a reprint of it.

Surcerely yours,

11-18-53

NATIONAL SCIENCE FOUNDATION WASHINGTON 25, D. C.

November 12, 1953



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

Dear Professor Wiener:

Your hame has been suggested for review of the enclosed research proposal P-852 entitled "Summability Methods; Spaces of Integrable Functions" submitted to the National Science Foundation by Professor George Lorentz of Wayne University.

Along with the proposal there is enclosed a rating sheet, a guide sheet, and a return franked envelope.

Your help in making this evaluation will be very much appreciated, since it will aid the Foundation to be of service to the scientists of this country.

Sincerely.

In w. Colon

Leon W. Cohen
Program Director for
Mathematical Sciences

Enclosure

2000 12-2-53

THE NEW YORK ACADEMY OF MEDICINE 2 EAST 103 STREET, NEW YORK 29, N. Y. TELEPHONE TRAFALGAR 6-8200

November 12, 1953

Dear Norbert:

Here is a crank letter which you may dispose of as you see fit.

Sincerely yours,

Jago Galdston, M.D.

Jon dis a fin & John and I am much brhows to

Dr. Norbert Wiener c/o Station WNYC New York 7, N.Y.

Jun

Encl.

/hw

The book armyd - Dlank gore.

M. ERIK HEILBRONER 114 WEST 11TH STREET NEW YORK 11, N. Y. November 4, 1953. Dr. Norbert Wiener c/o Station WNYC New York 7, N.Y. Dear Dr. Wiener, I listened with the greatest interest to your talk over New York City's station tonight, and I should also like to say that I am not entirely unfamiliar with some of your writings. I am writing to you today in order to submit to you, with all the modesty "both my nature and lack of knowledge in this field" impose on me, an idea which had occurred to me some time ago and which has come back to my mind time and again. It is not more but not less than an intuition, and I am not even sure whether any studies have been made in this field at all. I am referring to the kind - and extent - of influence radio emissions - I am speaking, of course, of the waves, not of the programs - exert on our nervous system. My reason for raising this question is "based," if I may use that expression, on a simple observation, and my conclusion may be utterly wrong. It is this: I have travelled a great deal in my life, and I have lived in a great many large cities, both in Europe and here. Yet, I have never encountered such an exceedingly high percentage of nervous disturbances, neuroses and allergies (the latter, as you know, almost unknown in Europe) than I have seen, and am seeing daily, in New York, and the reasons usually given for this phenomenon are, it would seem to me, hardly sufficient; they apply as well to a good many other large cities where social conditions are comparable, where life is equally hectic and where the economic struggle is possibly greater. The most striking difference between New York and other big cities I could think of is the enormous concentration of radio stations whose emissions are hitting, I would assume, our nervous system in the most literal sense of the word. It may not be impossible that a method could be found to "score those hits", and it might be equally possible to find some way of "insulation", comparable to the protection provided against the ill effects of exposure to X-rays.

It would seem to me that even if my premises should be wrong and if those nervous disturbances are caused by entirely different factors the influence of radio waves on the human body and mind poses a highly interesting problem.

I cannot, of course, but raise the question. I am certain that there is noone better qualified to answer it or to know the way to find the answer.

Yours sincerely,

M. Srik Le thong

November 12, 1953

Major Paul A. Baldwin 6520th AC and W Squadron Hanscom Field Bedford, Massachusetts

Dear Major Baldwin:

Professor Wiener was interested to receive your manuscript, but at the present time he will not be able to discuss it with you. He is preparing for an extended trip to India, and cannot undertake any thing else at the present time.

He will return to Cambridge in February, and perhaps if you would like to talk to him then, you might call the office and arrange an appointment.

In the meantime, I am returning your papers to youl

Yours very truly,

Mrs. James Cole Secretary to Professor Wiener

November 12, 1953

Sir Shanti S. Bhatnagar Secretary to the Government of India New Delhi, India

Dear Sir Shanti:

The more I look over the schedule of my trip, the more I am appalled by the strenuousness of the work I am to undertake. I have at hand a letter from my physician, who by the way was born in India from a missionary family there. She strongly echoes my feeling that there should be a break in my itinerary. She makes the suggestion that the appropriate break of two days should occur between the visits to Madras and Calcutta. It ought not to be too difficult to get some of the Bombay work taken care of immediately after my arrival in India, and to delay the final arrival in Bombay to the 30th, instead of the stated 28th.

With the many impressions which my India trip is bound to give me, I need a little time to assimilate them, and also I need to protect myself from undue strain. With the great stress which India, above all other countries, puts on privacy, I believe that you should be ready to accede to my desire to have a couple of days for quiet contemplation, totally devoid of interruptions, in a quiet hotel, where meals can be served in my room. It should not be too difficult to arrange for this in Madras or Galcutta; my physician suggests that perhaps Madras might be the better.

Sincerely yours,

Norbert Wiener

NW: bbc

November 12, 1953

Mr. Fon W. Boardman, jr. Oxford University Press, Inc. 114 Fifth Avenue New York 11, New York

Dear Mr. Boardman:

Professor Whener has received the copy of the book <u>Survival Through Design</u> which you sent him.

He hopes at some later dute to have time to read it thoroughly and give you his opinion on it, but at present he is preparing for an extended trip to India, and cannot take on any other work at this time.

Yours very truly,

Mrs. James Cole Secretary to Professor Wiener



Benson-Lehner Corporation

Applied Cybernetics

2340 SAWTELLE BLVD WEST LOS ANGELES 64, CALIFORNIA ARIZONA 9-3723 BRADSHAW 2-4629

November 13, 1953



Professor Norbert Wiener Massachusetts Institute of Technology Cambridge, Massachusetts

Ref: 100-22944

Dear Professor Wiener:

As I recall the most enjoyable day we spent together at the University about three years ago and the discussions we had at lunch, I very much regret that I have never had an opportunity to meet with you again. I am hoping to be in Boston during the beginning of the year and at that time will drop you a line in advance to see if perchance we can continue our earlier discussions.

As you will see from the letterhead, I took your suggestions to heart and I believe that we were the first by quite a bit in the field of applied physics and applied psychology to label ourselves in the field of cybernetics. An awful lot has happened in these last three years and I have had occasion to build a company which is now breaking out of its shell, shaking its scraggy body and taking a look at the world around itself. We have, in fact, given birth to quite a flock of machines which are finding their way in most parts of the United States and many parts of Europe. I regret to say that during the last three years we have been so busy doing that we have had very little time to think. It seems that thinking is a luxury which one can ill afford during the process of building a growing business.

During a few moments off, however, I have had occasion to play with a rather interesting system of which I am enclosing a very brief summary, and this is a subject which I would very much enjoy discussing with you sometime when we next meet. It seems, oddly enough, that little work has been done in the area of placing human beings in feedback loops. In fact, I did not find any record nor have I heard of any work being done at all along the lines of the thinking in the enclosed note. I would be very interested in your comments on this subject.

Page Two

You will probably be very amused to hear of an incident which occurred when I was playing with two magnetic tape recorders hooked up to establish the feedback loop described. We have at home a cockateel by the name of Corky who became quite intriqued with the goings-on of the tape recorders with which we were working. He came over to the microphone and let out a cockateel-ish shreek which, of course, duly repeated by the playback unit with a delay of about half a second. On hearing the "second bird" calling he let out a second scream and so on. This is the first time that I have had occasion to see a bird in a feedback loop. Fortunately, we were using a long tape rather than the belt and have a most interesting recording of the performance.

I am hoping during the coming year to have occasion to do quite a bit of work on the feedback system described and in fact, we are hoping to build this device into some of our machines on an experimental basis.

I have been hovering on the brink of writing to you to get your views on the subject for quite some time and was finally prompted to get this letter off for the following reasons. In the interests of efficient technical communication we have set up a complete mobile data reduction unit fully equipped with all sorts of fearsome machines and it has for the past few months been stealthily creeping across the United States towards Boston, upon which it is going to inflict itself Wednesday and Friday, November 25 and 27, just prior to and after Thanksgiving. It is in the tender hands of a very capable young man by the name of Donald B. Prell who has done quite a bit of work in this technical field. He took mathematics at the University of California at Los Angeles and psychology there and at the University of London and has done some extremely interesting work. He has for a long while been looking forward to an opportunity of meeting you and I am suggesting to him that he forget about his machines for a while and allow himself the privilege of visiting with you. I do hope that when he calls on you it will be convenient for you to spare a little while with him.

While on the subject of time, I was very thrilled when I heard that you had found time to write yet another book and can assure you that both I and my wife have enjoyed "Ex-Prodigy" very much. Your three books are, as one might expect in our field, in the place of honor in the company library and many of our employees have derived much pleasure from reading them.

I will not take further of your time with this letter but look forward very much to seeing you during the early part of the year.

Sincerely yours,

BENSON-LEHNER CORPORATION

Bernard S. Benson

[aus 12/14/53] President

BSB:jr

118-601

FEEDBACK RHYTHM SYSTEM

A preliminary proposal for a method to increase productivity in repetitive operations

BENSON-LEHNER CORPORATION 2340 Sawtelle Boulevard Los Angeles 64, California

INTRODUCTION

The problem of motivation in the performance of repetitive operations is becoming increasingly important, partly because in our present military and in dustrial operations, there is a tremendous investment in man-hours in tasks where the yield is influenced by the motivation of the operators. Secondly, apart from economic aspects, it is becoming increasingly difficult to maintain an effective staff doing monotonous work in the face of competition from more interesting fields. The problem of performance, therefore, is of appreciable importance.

It is stressed that the following discussion is of a very preliminary nature and is presented at this early stage in view of the high interest shown in the proposed work on the "feedback rhythm system" discussed. Very little experimental work has been done, although the logic of the proposal tends to be self-evident. The value of the system has yet to be determined.

There is little doubt that fatigue as experienced by operators performing monotonous work is not so much muscular or physical fatigue as it is a psychological reaction to boredom. The introduction of sub-goals such as completing a given job in a given time or completing a certain number of operations per hour, etc., produces an appreciable improvement over a situation where the repetitive task is performed on a day-in, day-out basis with no opportunity for goal-achievement satisfaction. Probably related to this psychological need is the lack of fatigue in the face of quite arduous

operations, as for example, in rhythmic dancing. The blacksmith who beats
the anvil two or three times between each operation, or the barber who snips
the scissors rhythmically between each attack on a tuft of hair is an example
of the need to introduce rhythm even at the expense of additional, and otherwise
useless, operations into systems which would otherwise not be rhythmic.

Efforts have been made in industry to take advantage of some of these factors by the introduction of music into the plants. However, the tempo of the music as a rule bears little relationship to the tempo of the operation being performed, in fact, very often disturbs what would otherwise be a natural pace.

THE PROBLEM

The problem would therefore appear to be one of introducing a rhythmic beat as an auditory or other signal to cue the operator at particular time intervals related to the operation. By such means one creates a need and produces satisfaction from fulfilling the need, to maintain synchronization with the cueing rhythmic sounds.

The task of building sound patterns into machines would be complex and, in many ways, unsatisfactory in its simple form, because each individual machine creates a different timing need, as probably does each individual operator.

In other words, particular machine-operator systems probably have a natural frequency of operation which is a function, among other things, of the machine, the operator, and the task. Examples of this type of operation would be reading

and recording repetitive information, manual plotting, operation of industrial machines, and many other similar tasks.

PROPOSED SOLUTION

It is proposed to introduce a microphone at the strategic part of the machine where the parts of the operating cycle create an audible note, or if necessary, to introduce artificial sounds into the machine to feed the microphone. This information is to be fed to a magnetic tape loop and recorded on the tape. A playback head placed a specific distance away from the recording head would pick up this recorded sound and play it to the operator either through a small loudspeaker or through head-phones. Now, if the distance of the two heads were set apart such that as soon as the first operation were complete, the recorded sound, or in other words, the echo, would be played back to the operator as a beat for the next cycle. In this way, the operator is pacing herself from her previous operation, hence the term "feedback rhythm".

The interesting part of this proposed system is that the overall man-machine system has a chance to establish the optimum rhythm for that operation.

From the very small amount of work done, it would seem that this rhythmic type of operation with distinct cues induces a type of compulsive synchronization to the beat which may well yield a substantial increase in productivity associated with a decrease in fatigue, at an insignificant cost compared with the savings.

With such a feedback link established, there are many interesting possibilities which can be considered for externally tampering with the system. Three of these possible controls are as follows:

1. Inertia

If the machine is playing back the previous cycle, it is evident that if the operator wants to speed up a cycle or conversely, to slow it down, she can get slightly ahead of the played back beat in one cycle whereupon the next cycle will repeat at the new speed. The next time she can be slightly ahead again, and so on, so that the speed of operation of the overall cycle can be gradually increased by the operator and the echo will follow in behind. Now, if one were to choose to play back, not the previous cycle but one perhaps five or ten cycles away, the "inertia" of the system would be increased and the operator would have to force herself to remain out of phase for several cycles before the machine would follow.

2. Operating Speed

If a loop is created in the tape between the two heads by placing an idler in the system, then by stretching the idler and extending the loop, or by letting it in to reduce the loop, the actual speed of that particular cycle can be changed. For example, if the loop is extended during one cycle so that it is played back slower than the rate at which it was recorded, then the operator would need to slow down to maintain synchronization with that beat. In so doing, it would establish a lower rate for the next recorded cycle. Hence, one pull or one release of the loop will step up or slow down the operation in view of the feedback nature of the operation.

3. Repetition Rate

The interval between the cycles can be adjusted by the spacing of the two heads so that the repetition rate as against the speed of each cycle operation can be controlled externally. The length of the pause period between operations can thus be controlled.

These and many other possibilities are felt to be of extreme interest and it is suggested that work in this direction might be very profitable.

groff and kucy conklin

432 west 22 street new york 11, n. y.

November 13, 1953

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

Dear Dr. Wiener:

Herewith my check for the royalty advance due you on THE BRAIN, as it appears in the Permabook edition of CROSSROADS IN TIME. I hope you have received your copy from the publishers; if not, let me know and I will see that you get one.

I'm wondering what, if anything, has become of your wonderful idea for a book on your Mexican friend, the one you described to me last summer. Please don't forget that I am very interested in it; and if there is anything I can do to help out with it I'd be glad to be of use.

Do you have any idea from Boucher when "MIRACLE IN A BROOM CLOSET" is going to appear? I still have my eyes on that story for a new anthology, which, however, is not yet sold. I hope you will remember that I want it and at least give me a chance at it if and when someone else asks for it.

With all good wishes,

Gisf Chilein

[ans 11/16/53]

National Society for the Study of Communication Committee on General Methodologies Seth Fessenden, Chairman University of Denver Denver, Colorado November 13, 1953 Mrs. James Cole Secretary to Professor Wiener Department of Mathematics Mass. Institute of Technology Cambridge 39, Mass. Dear Mrs. Cole: Your letter of November 10 came as a great surprise. Last April I wrote Dr. Wiener asking him if he would serve on a panel at the yearly joint meeting of the National Society for the Study of Communication and the Speech Association of America which is to meet in New York during the Christmas holidays. I explained to him that Dr. Elwood Murray was the sponsor of the program and that I was given the privilege of developing and chairing it. I explained that the other panel members would be Dr. Allen Walker Read of Columbia, M. Kendig of the Institute for General Semantics, and Dr. J. L. Moreno. On May 6th I received the following letter signed by Dr. Norbert Wiener: I am flattered by your invitation to speak at your December convention, and I should like very much to accept.it. At the moment, I am very tired after a strenuous spring term. I anticipate, however, that a long summer's rest will revive me thoroughly, and that by fall I shall be back in form. May I, therefore, accept your invitation provisionally at this time, making no definite commitment until early autumn. I know that this kind of arrangement may not be possible in your program planning, and if it is not, please do not hesitate to tell me. Sincerely yours. Norbert Wiener

Naturally, I was extremely please to have even this tentative acceptance. On May 12th I replied, in part: This is just a note to express my appreciation of your willingness to be a member of the panel of speakers looking "Toward a Theory of Communication" at the national convention next winter. I sincerely hope that the summer's rest will lead you to have more vigor and creativity than ever. I am selfish in this, I suppose, for I feel we need you badly. I reported to the program chairman of the National Society that Dr. Norbert Wiener would probably be a member of the panel. This information was relayed on to the program chairman of the Speech Association. Inturn both released publicity to this effect. for the presence of Dr. Wiener as a speaker on any occasion is valuable news. There have been many comments to the effect that here is one man everyone wants to hear. And now with the publication of the biography, the interest will be even more intense. On September 30, I sent Dr. Wiener the basic information letter relative to time and planned procedure. I am enclosing a copy of the letter. You will note that in the first paragraph I ask that a reply be sent to me only in case the arrangements were not satisfactory. I received no work, so the final program arrangements were kept as they were initially st. Dr. Wiener certainly has the privilege of not being a member of the panel, but I sincerely hope that he will be able to find time to appear. I shan't ask for a formal paper, for I think he should be allowed to participate in any manner he might wish. There are a lot of us who are looking forward to hearing from him. If there is anything further that I can do to clarify the situation, please let me know. We will try to comply with any wish, for we want very much to have him with us. Iseth A. Fessenden Sincerely yours, cc Dr. Murray [ans 14/18/53]

November 13, 1953

Dr. Arturo Rosenblueth Instituto Nacionale de Cardiologia Avenida Cuauhtemoc No. 300 Mexico, D. F., Mexico

Dear Arturo:

I have missed very much not seeing you for about two years. We have hoped that you might pass through Boston on your way to the Physiological Congress at Montreal. Quite a few people came to Cambridge for the electrocardiologist meeting, and we had a very good time.

Chafetz is working with Mollie Brazier and Schwab on the use of autocorrelation methods to brain waves. These are seeming to pay off very well, as the autocorrelation mthod shows at least in some cases, a persistence in phase of alpha waves lasing well over one second, and probably at least two. This was not expected by us but is extremely gratifying, and means that the investigation of the finer structure of brain waves is a must in the future. Indeed, we have been able to establish definite and sharp phase relations between waves from different parts of the brain, and this has been subject to the analysis which I made during my trip abroad, of direction and amount of causality.

I have been very busy on a number of other matters. I am putting together my ideas with respect to a treatise on cybernetics of perhaps 500 pages, which I intend to write during the next year or two, and during the past summer I have completed the first draft of a second volume of my autobiography, which has been accepted, not by Simon and Schuster, but by Doubleday. I have a lot of new work on the nature of causality and of scientific method, some of which I have gone over with Browowski, who was here from England last year. I've also been

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working with a young physicist, Siegal, on a new method of presenting the hidden variables in quantum theory. The stuff looks as if it were really paying off, and it goes far beyond the work of Bohm and even of Feynmann, neither of whom seems to have the proper technique to put his ideas on a firm basis.

As you will see, I am up to my neck in work. Add to this the fact that I am going for a six-week trip to India, centering in January, and that the schedule they are putting me through will be about all I can stand. I have been cutting my outside lectures to the bone, although I have just completed w week's trip to the Pacific Coast, and a two days' trip to New York.

Margaret and I miss Mexico very much. want to be down there again within a reasonably small number of years, even without the obligation of carrying on scientific work, but with the intention to do it just the same. By the by, don't you think that it's rather a long time for the paper of Chafetz and myself not to have been published? It is hurting me with my friends here because it suggests what is not the fact, that I did not come across with hard and responsible work on my last trip. It is hurting Chafetz even more, as he is a young man, at precisely the stage of his career at which he cannot afford to have valid work tied up for an indefinite period. I have hesitated very much to add to your already heavy schedule by asking you either to see your share of the work through, or to give up the paper to us and let us dispose of it ourselves, but in fairness all round, there is nothing else I can do.

I have seduously remained away from the problem boys for the last two years, and I have seen no work of theirs or change in attitude which would justify my softening my policy in the least. Among the problem group I include, of course, McCulloch, and, in fact, I include him in the first line. I have had a pleasant few weeks with Grass, and I know that your many friends in Boston are asking about you and

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hoping to see you again soon. I hope all is going well with you, and I join Margaret in sending my regards to Virginia, and I hope you will pass my good wishes around to our many friends at the Institute and elsewhere in Mexico City. By the by, I see that Manuelo has recently been canonized as Vice-Minister of Education. Manuel is a good and true fatiend of ours, but I am afraid that he suffers from a mild case of striped pants addiction.

Sincerely yours,

Norbert Wiener

NW: bbc