[ca sept, 1960] Prof. Norbert Wiener M.I.T. Dear Prof. Wiener During your residence in Moscow, you spoke about some of your work, and that was of great interest to us. In the University of Moscow you went to see Kafierdus the higher nervous activity, where I spoke with you on my own work, but I was busy for the work on the brain, from the wiew-point of a complex self-organizing system. (This work on the reflex has to be pubblished on the book S.N. Braines, A. V. Napalkov and V. B. Sviecinsky "Neurocybernetics problems". I will send you the book.) During the discussion you spoke about some of your work, and that was of great interest to us. We belive, that this powerful and essential work will develop the study of the "modus operandi" of such a complex self-organizing system, as the brain appear to be. My hope is to be able to see the influences of this particular research on the study of the brain. I am very sorrybut. evidently I made some mistakes when I wrote the title of your article and the number of the journal, and I cannot find it. For this reason, please, will you send me the exact bybliography of your article, so I can be able to utilize it together with your research. Excuse me for the disturbe With the greatest estime A. V. Naparkov My address is: Dept. of Higher Nervous Activity Moscow "B-234" Moscow State University Lenin Hills Biological Faculty - room No 431 A.V. NAPALKOV

Профессору Норберту Винеру Моссечуветский институт технологии Глубокоуважаемый профессор Норберт Винер! В период Вашего пребывания в Москве Вы рассказали нам о некоторых Ваших работах, которые очень заинтересовали нас. В Московском университете Вы посетили Кафедру высшей нервной деятельности, где мы беседовали с Вами о проводимой нами работе, связанной с изучением работы головного мозга, как сложной самоорганизующейся системы. /Эта работа отражена в книге С.Н.Брайнес, А.В. Напалков и В.Б. Свечинский "Проблемы нейрокибернетики". Эту книгу я в свое время выслал Вам/. При обсуждении Вы рассказали о некоторых своих работах, которые очень заинтересовали нас. Нам кажется, что эти работы могут существенно продвинуть вперед проблему изучения механизмов работы такой сложной самоорганизующейся системы, каковой является головной мозг. Мы хотели бы предпринять в связи с этим специальные исследования на головном мозге. К сожалению, мы, видимо, неточно записали названия Ваших статей и номер журнала, и не смогли найти эти работы. В связи с этим очень просим Вас прислать нам название этих Ваших статей, с тем, чтобы мы могли использовать их в своих исследованиях. Прошу извинить за беспокойство С глубоким уважением Старший научный сотрудник кандидат биологических наук А.В. Напалков Мой адрес: DEPARTAMENT OF HIGHER NERVONS ACTIVITY Moscow "B-234" Moscow State University Lenin Hills Biological Faculty room No 431

A.V. NAPALKOV.

DR. CHARLES SÜSSKIND UNIVERSITY OF CALIFORNIA BERKELEY 4. CALIFORNIA September 1, 1960 Dr. N. Wiener Massachusetts Institute of Technology Cambridge 38. Massachusetts Dear Dr. Wiener: Reinhold Book Division (publishers of Kohl's "Materials and Techniques for Electron Tubes," Holzbock's "Automatic Control," and many other books on electronics) have decided to publish a one-volume "Encyclopedia of Electronics," to match their very successful "Encyclopedia of Chemistry" (1957) and the "Encyclopedia of the Biological Sciences" (now in preparation). I have agreed to act as Editor-in-Chief of the proposed encyclopedia and am writing to ask you to contribute the article described below. The length of your article is dictated by the requirement that the Encyclopedia will be limited to a single volume. The level of sophistication is determined by the fact that the Encyclopedia is directed at the graduate engineer or scientist, i.e., the technical man who seeks information on a subject about which he knows less than you do.

Since the circulation of a professional encyclopedia, which is extremely expensive to produce, is likely to be relatively limited, the remuneration to contributors cannot be as generous as it would be for a popular encyclopedia. The publishers have agreed to pay either 1.5 cents per assigned word, payable on publication; or, as you would probably prefer, a free copy of the Encyclopedia itself.

The deadline for this article: four months from now, although I should much prefer to have it before then if at all possible. Information regarding the format and other publication details will be supplied by the publisher upon your acceptance of this offer. I am enclosing a tentative working list of entries arranged by subject matter, to indicate how your contribution will fit into the over-all scheme. However, the list is by no means final, and I shall welcome suggestions for amending it.

Some of the top names in the field of electronics, men who know their subject and can carry out the challenging task of providing a condensed presentation of it, are on the list of contributors. I hope you will agree to join their ranks in what I sincerely believe to be a really worthwhile project.

Yours very sincerely,

Charles Süsskind Associate Professor

Assigned length in words: 1500

Assigned topic: Cybernetics

[aus 12/1/60]

# TENTATIVE WORKING LIST OF ENTRIES Reinhold "Encyclopedia of Electronics" (Dr. Charles Süsskind, Editor)

#### ANTENNAS

Antenna, array

-end fire

-frequency-independent

-horn

-lens

-reflector

-slotted waveguide

-special types

Balanced converter (Balun)

Radome

#### CHEMISTRY

Atoms

Elements

Electrochemistry

Electrolysis

Ion

Isotope

Materials, ceramic

-insulating

-gasses

-glass

-semiconductor

-solder

-used in tube technology

-wire

Molecule

Spectroscopy

-infrared

-light

-mass

-microwave

#### CIRCUITS

Amplifiers, dc

-feedback

-bandpass

-low-pass

Circuits, generalized equilibrium equations

-nonlinear (general properties)

-- electronic

--- sweep and scanning

---switching

---trigger

-- magnetic

-mathematical analysis for linear

-- for nonlinear

-time-varying

Oscillators, electronic

Realization techniques, approximation

-numerical evaluation

-passivity and stability

Signal theory

Signals, characterization of

#### COMPONENTS

Autotransformer, variable

Capacitor

Circuit breaker

Coil

Contacts

Core

Coupler

Fuse

Magnet, permanent

Magnetic tape

Potentiometer

Printed circuit

Rectifier, solid-state

Relay

Resistor, carbon

-film

-wirewound

Rheostat

Saturable reactor

Switch

Transducer

Transformer

#### ELECTROACOUSTICS

Acoustics

Audio engineering

Electroacoustics
Electronic music
Hearing aid
Loudspeaker
Microphone
Musical instruments, electronic
Pickup
Recording, sound
Reproduction, sound
Stereophonics
Telephone
Ultrasonics
Underwater sound
Visible speech

#### ELECTRON COMPUTERS

Coding circuit
Computer, analog
—digital
—logic
Counter
Logic circuit
Program
Storage, electrostatic
—magnetic
Translation, machine, of languages

#### ELECTRON DEVICES (SEMICONDUCTOR)

Diode, semiconductor

--microwave
Semiconductor manufacture
--materials
--properties
Spacistor
Thermistor
Transistor, junction
--point-contact
Varistor

#### **ELECTRON TUBES**

Acorn t.
Attenuator t.
Beam-switching t.
Cathode-ray tubes, camera
--Charactron
--dark-trace
--display

-iconoscope -image dissector -- intensifier -- orthicon -vidicon Converter t. Current generator t. Dynode Electrometer t. Electron tubes, conventional -beam power -diode -hexode -mixer -octode -pentode -tetrode -triode -variable mu Glow t. Indicator t. Local-oscillator t. Nuvistor Scanning Vacuum techniques

#### ELECTRON TUBES (GAS-FILLED)

Antitransmit-receive t.
Arc-over
Counter tube, radiation
—Geiger-Mueller
—selfquenched
—scintillation
Ignitron
Magnetron, gas-filled
Plasma
Thyratron
Transmit-receive t.

Voltage-regulator t.

#### ELECTRON TUBES (MICROWAVE)

Backward-wave t.
Barkhausen oscillator
Bunching
Carcinotron
Cyclotron-resonance t.
Helitron
Klystron

Lighthouse t.
Magnetron
Rieke diagram
Space-charge waves
Traveling-wave magnetron
Traveling-wave t.
Velocity modulation

#### ELECTRON TUBES (PHOTOTUBES)

Optron
Photocell
Photoconductivity
Photomultiplier
Photovoltaic effect

#### ELECTRON TUBES (PHYSICAL ELECTRONICS) Statistical model, analysis of

Contact potential difference
Cyclotron frequency
Double-stream amplification
Electroluminescence
Electron optics
Emission, field
—photoelectric
—secondary
—thermionic
Larmor frequency
Space charge
Work function

#### ELECTRON TUBES (STORAGE)

Direct-viewing storage t. Storage, electronic Storage t. Williams t.

#### INDUSTRIAL ELECTRONICS

Dielectric heating
Electrodeposition
Electroplating and -forming
Induction heating
Radiation processing
Refining
Ultrasonic cleaning
Welding
Zone melting

#### INFORMATION THEORY

Channel capacity Coding Congestion and waiting process Decision theory Game theory Information measure Information theory Linear programming Markov process Monte Carlo method Noise transmission Probability Random process Signal transmission Statistical theory Transmission reliability

#### **MEASUREMENTS**

Analyzer, pulse -frequency -waveform Bolometer Bridge Calibration Colorimetry Electroscope Indicating vs integrating Instruments Interferometer Galvanometer Measurement accuracy Monitoring Standards Scale calibration Tuning Vacuum Wavemeter

#### MODULATION SYSTEMS

Amplitude m. Carrier Compression Demodulation Discriminator Frequency m. Heterodyne Mixing Modulation Phase m. Pulse code m. Pulse-duration m. Pulse-frequency m. Pulse-interval m. Pulse position m. Pulse-time m. Scattered transmission Signal fluctuation and interference Single- and double-sideband m. Subcarrier Superheterodyne Threshold phenomena

#### NOISE

Background
Barkhausen
Brownian motion
Electron beam
Fluctuation
Gas-filled devices
Generation of
Noise figure
Processing of coherent n.
Shot n.
Signal-to-noise ratio
Statistical theory of
Thermal

#### PHYSICS

Accelerator, particle, betatron

- -bevatron
- -cyclotron
- -cosmotron
- -linear
- -- Hansen
- --Hilac
- -- Sloan-Lawrence
- -- Cockroft-Walton
- -microtron
- -synchrotron
- -strong-focusing
- -undulator
- -Van de Graaff

Atomic energy, fission

-fusion

Conduction

-skin effect

Contact potential

Cryogenics

Dielectric theory

-constant and refractive index

Dipole moment

Electron

Electromagnetic theory: electrostatics

-magnetostatics

-Maxwell's equations

-mode analysis

-lumped-circuit description

-stress tensor

-transmission-line formulation of e-m

theory

Electron-spin resonance

Electrostriction

Faraday effect

Ferroelectricity

-ferromagnetic crystals

-antiferromagnetism

Hall effect

Magnetism

-eddy current

-diamagnetism

-ferromagnetism

-hysteresis

-paramagnetism

-permanent m.

-permeability

-thin films

Magnetohydrodynamics

Magnetostriction

Matrix algebra

Mesons

Neutrinos

Nuclear physics

Optics

-birefringence

-optics, geometrical

-optics, physical

Piezo- and pyroelectricity

Propagation, atmosphere

-earth curvature

-fading and diversity

-ionosphere

-meteor

-precipitation
-scattering
-troposphere
Radiation, background
-black body
-spectroscopy
-Wien's law
Relativity theory, general
-special
Superconductivity
Thermonuclear energy
Vector algebra

#### RADIO AIDS TO NAVIGATION

Accelerometer Airborne navigation, air-derived -cooperative -ground-derived Altimeter Automatic direction finder Automatic pilot Beacon Compass, radio Flight path simulator Instrument approach and landing Integrated instrumentation Interrogation Magnetometer, airborne Moving-target indicator Omnidirectional range Plan-position indicator Radar, navigational -search -side-looking Radio range Sonar

#### SYSTEMS AND FEEDBACK CONTROL

Active network, analysis of
Automation
Data processing
Feedback control system
Linear system, stability criteria for
Multiloop networks
Nyquist stability criterion
Sensitivity function
Servomechanism
Signal-flow graph

System identification Telecommunication system

#### TELEVISION

Television
Television, color
—Apple tube
—Chromatron
—colorimetry
—Kaiser-Aiken tube
—Land theory of color
—shadowmask

#### TRANSMISSION LINE AND WAVEGUIDE

Attenuator
Coaxial 1.
Parallel-wire 1.
Phase shifter
Resonator
Standing-wave ratio
Waveguides
Wavemeter

#### MISCELLANEOUS

Battery, atomic -dry -solar Electret Electric discharge Electron microscope, electromagnetic -electrostatic -emission -scanning -spectrography Electronic countermeasures Ferrimagnetism (Spinel) Ferrite Frequency -allocation -control -conversion -measurement -multiplier -standard Geophysical prospecting Human engineering

Human reaction to information

Infrared Interference, atmospheric -crosstalk -geomagnetic storms -intermodulation -man-made -screening against Light Light-beam oscillograph Magnetic amplifiers Maser Medical electronics -biophysics -diagnosis -EEG -cardiograph -instrumentation -therapy Mobile (vehicular) communications Molecular-beam devices Nomography Nuclear magnetic resonance Nucleonics -atomic clock Parametric amplification, diode -electron tube -solid-state Patents Plasma Printing -facsimile -videograph -xerography Production techniques

-miniaturization -modular construction Radiation sterilization of food Radio astronomy -aurora -cosmic radiation -galactic radiation -lunar radiation -meteors -solar radiation -whistlers Radio links Radiotelegraphy Radiotelephony Reliability and quality control Safety, alarm system -breakdown -fail safe -hazard, microwave -- radiation -- shock Solid circuit Static electricity Symbols Telemetry Temperature scales Testing, environmental Units X ray, camera -generation -microscope -tube

-packaging

## YALE UNIVERSITY NEW HAVEN · CONNECTICUT

REUBEN A. HOLDEN, Secretary

September 2, 1960

Professor Norbert Wiener Massachusetts Institute of Technology Cambridge 39, Massachusetts

Dear Professor Wiener:

Your letter brought us good news and we are all delighted that you can be at Yale during 1961.

The fall would be fine with us, and I look forward to corresponding with you next summer or early fall to ascertain what dates would be most convenient for you.

Meanwhile I hope you will have a very profitable stay abroad.

Very sincerely yours,

Rubina Shraen

ČESKOSLOVENSKÁ AKADEMIE VĚD

FYSIOLOGICKÝ ÚSTAV

PRAHA-DEJVICE, Na cvičišti č. 2 telefon 322-860, 321-820

Institute of Physiology

Prof. Norbert Wiener

c/o Czechoslovak Academy of Sciences

Hotel Jalta, Praha

Vaše značka

Váš dopis z

Naše značka

Proha 2nd Sept. 1960.

Věc:

Dear Professor Wiener,

After the stimulating discussion at your lecture this evening, I take the opportunity to enclose the M.S. of my short paper which just appeared in the EEG Journal and two Czech reprints with Figures. In a few months I shall have the honor to send you an English paper with full account and a Czech monograph with English summary on the same topic, both being in press now.

Sincerely Yours

MUDr JOSEF HOLUBÁR Jičínská 13, Praha XI. private tel. 27-31-85

1. Holahas

Vyřízuje: linka:



SEMITIC TYPE
(SILENUS ?)
FAYOUM - TERRACOTTA

ט פוס ש מי נסילונסו פאיום – חרס פאיום – הרס

Roman period בנוכן תקופה רומאית

TECHNION - ISRAEL BENDERED TO THE CHARLES

Best New Year Wishes Shrapga Irmay

Prof. S. Irmay, Technion Herifa, Israel

> חיפה, מוזיאון עירוני לאמנות עתיקה HAIFA, MUNICIPAL MUSEUM OF ANCIENT ART





Profesor Norbert Wiener

Department of Mathematics

M. I. T.

Cambridge, Mass.

USA



MADE IN ISRAEL

C.O. Box #988 Palm Forings, Jalifornia September 7, 1960

Mr. Norbert Wiener, Großesser of Mathematics Massachusetts Anstitute of Tech nology Gambridge, Mass.

Mar In Jessor Wiener,

you are emenent in the field of Cybernetics. Perhaps the ideas that follow will be of interest to you.

Perhaps you need them. The object is to develop a body sensitive gloth. So as the

individual's inner workings, body vibrations & skin sensitivity would formin the cloth in color & Juttern. The color & pattern would vary over the body. You wouldn't expect the same from the liver as from the

brain This cloth would also protect against the elements.

te doctor would be more effective. Visease would tend to be eliminated before it began so to speak. The system would indicative & send to reinforce bad feelings that might be obscure or hidden to a doctor with our inadequate instruments as modern as they seem to be

theman relationships would be more fully unders tood. Inside one & between two wouldn't be a series of guesses. Ideas Tall kinds sould be abstracted without over drawing on the roots & distroying or damaging the individual

Change, puticipation, growth & Plevelopment all play their parts. Aims E emphasis - a study in relative inadequary would approach totality along with the division flabor.

With photoelectric cells, computers, tuning circuits & pris matic lights the total sense of the individual ran be brought into society adding to the

color & pattern in change, Enterpation, growth & development. This would tend to balance the mechanical insect, buil, fish and animal power extentions that are emphasized today.

The body sensitive cloth if it raw be developed is the key to the system

with the individual as a central exciter. Without the cloth, the system of photoelectric cells of computers coupled with tuning circuits & prismatic lights would be an emply shell, & room or home responding in a poor approximation in color & pattern to the individual's change, anticipation, growth & development. The cloth is the missing link to organic architecture.

In your book "The human use of human beings " the chapter "Voices of Rigidity" you pay " the immediate future of society is danger. our & dark." Totality as attempted existential philosophy seems to over emphasize the necessity for lividges where the canyons or alignees are Those of development. The traffix problem is to reduce the canyon floor flow & have elevated arteries to ease the pressure & have cohesive development which reinforce our extensions.

Trust you have found this worth yourwhile - perhaps a bright spot in aggreach.

Fricerely, The Book Shepard

# JOHN SIMON GUGGENHEIM MEMORIAL FOUNDATION 551 FIFTH AVENUE · NEW YORK · N · Y ·

September 6, 1960

ok

To the Fellows:

Mr. Moe has suggested that I get my hand in as Associate Secretary General by writing the letter which you have become accustomed to receive from him at this time of the year.

In introducing myself I had better say first that I became a Fellow of the Foundation in 1941, that my fellowship has been twice renewed, and that I have served on the Foundation's Advisory Board. My degrees are from Indiana and Harvard. I have taught chiefly at the University of Illinois, where I was Head of the English Department for seven years, and also at Harvard, N. Y. U., and Oregon. During the three years before I came to the Foundation I was Vice President and Provost at Illinois. I served in the Navy during the second world war. My books have been about Thackeray and latterly H. G. Wells, whose biography the Foundation is characteristically not only permitting but encouraging me to write.

It should go without saying that I thoroughly believe in the Foundation's program as stated in its Charter and Senator Guggenheim's Letter of Gift in 1925, as developed by Mr. Moe during the past thirty-five years, and as reaffirmed in 1957 by a Committee of Fellows appointed by the Board of Trustees. The aim of promoting "the advancement and diffusion of knowledge and understanding and the appreciation of beauty," through a fellowship-granting organization which supports the free development of individuals of proven accomplishment working on the frontiers of knowledge and the arts, to the end of adding "to the educational, literary, artistic, and scientific power of this country," remains as valid as when it was first asserted. I am convinced, as was the Committee of Fellows, that the major capital additions which are in prospect for the Foundation can best be used to expand the present program without any substantial change in its nature.

- 2 -The Foundation's success is dependent on the happy tradition of cooperation which Mr. Moe has established between it and the worlds of learning and the arts. The candid advice freely provided by leaders in these worlds ensures that its fellowships are regarded as badges of special merit because they are based on the most authoritative judgments available. The essential first step towards these awards is our annual appeal to the Fellows for suggestions regarding future fellowships. Will you send me the names and addresses of those persons whom you may wish to recommend, with any facts that you may care to add on the first round? Yours sincerely, your ordering will be greatly valued. Fordon M. Ray Gordon N. Ray Associate Secretary General Dr. Norbert Wiener Massachusetts Institute of Technology Cambridge, Massachusetts

## CBS TELEVISION NETWORK

A Division of Columbia Broadcasting System, Inc.

485 MADISON AVENUE, NEW YORK 22, NEW YORK • PLAZA 1-2345

RICHARD D. HEFFNER

Director of Special Projects Information Services

September 7, 1960

Professor Norbert Wiener Hotel Amager Aktieselskab Kobenhavn S. Denmark

Dear Professor Wiener:

Thank you so much for taking the time to write to me. I regretted your decision -- but I very much enjoyed your letter!

Perhaps at another time we will be able to work together.

Sincerely,

RDH:cl



### THE TECHNOLOGY REVIEW

EDITED AT THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY

CAMBRIDGE 39, MASSACHUSETTS

September 7, 1960

Norbert Wiener c/o Max Richter Kandlstrasse 6 Aalen 1 Wurttemberg Germany

Dear Professor Wiener:

It occurred to us that you might like to see this book announcement.

Sorry you're missing the Presidential campaign; it promises to be lively. But we hope you and Mrs. Wiener are having a delightful trip. You are greatly missed here.

With best wishes,

As ever,

Volta Torrey

Editor

VT:nh

#### WILLIAM H. JONES

EXECUTIVE OFFICER
ADMINISTRATION
THE AUSTRAL!AN GAS LIGHT COMPANY

SYDNEY NEW SOUTH WALES

Statler Hilton BOSTON 13: 9: 60 Try Wiener Acar Sir, I am currently making a Survey for my company. The Kustinham Fas tightle - Sydney! Australia of Top Management Here coments techniques there spent some 4 worlds covering mayer centres in the U.K. www. S. A. A munter of professor have Suggested & Should approach you for uper thoughts in these fullo particularly are a recognised expert. Prof. from a reference which I new do. No I will be moving Continuously through the States would it be possible for you to made such informations threatly to me in Australia

my address is W. H. JONES EXEC OFFICER (ADMIN) THE AUSTRALIAN GAS LIGHT CO 477. 487 PITT ST., STONEY - AUSTRALIA. I realise you will be overseens for some time that I will have to work for you to return tup I can assure you I but appreciate any help you Con live me. Bagard, yours Successly Della .

[aus 2/15/61]



### ASOCIACION VENEZOLANA DE INGENIEROS ELECTRICOS Y MECANICOS

APARTADO 6255

CARACAS - VENEZUELA

Caracas, September 14, 1960

n. 749

Dr.Norbert Wiener
Massachusetts Institute of Technology
Cambridge Massachusetts

Dear Dr. Wiener,

The next coming year, our "Colegio de Ingenieros" will be One Hundred Years old. With the purpose of commemorating such event, a very selected number of scientific and cultural acts are being programmed.

To splendor them, each society has been asked to contribute with the presentation of a person of international stature in its field, by reason of outstanding scientific work.

Could you possibly honor the selection we have made in your person, by accepting our nomination and further invitation to attend the celebration to be held throughout the coming year. If so, kindly advise us as to which date it would be convenient for you to attend, so that we may prepare in advance the required arrangements. Needless to say, all travelling and local expenses will be on our behalf.

We would greatly appreciate your contributing to the success of this anniversary with your presence; particulary those of our members that have had the pleasure of personally knowing you, as students of Tech.

Very truly yours,

Roldolfo Tellerfa Villapol

President

NPL

September 14, 1960

Arturo Aldunate Ph. Compania Chilena De Electricidad, Ltda. Casilla 1557 - Santiago Chile

Dear Sir:

This is to acknowledge receipt of your recent communication to Professor Norbert Wiener. Professor Wiener will be abroad until the spring semester of 1961.

All of the material which has been published by Professor Wiener will be included in the revised edition of his "Cybernetics" book. This will be available sometime within the next 3 months.

Sincerely yours,

Secretary to Prof. Wiener

TASS TELEGRAPH AGENCY OF THE U. S. S. R. 50 ROCKEFELLER PLAZA NEW YORK BUREAU CABLE ADDRESS: TASSBURO, New York TELEPHONE: CIRCLE 5-4250 September 16, 1960 Professor Norbert Wiener 53 Cedar Road Belmont, Mass. Dear Professor Wiener: We are writing to ask whether you would be good enough to lend your aid to an interesting and unique journalistic project. The Soviet newspaper Izvestia is planning to publish a book entitled "One Day in the World", which will attempt to present a picture of the world on a given day--September 27, 1960. In this connection, Izvestia -- acting through our agency -- is asking people in all walks of life and in many countries throughout the world, to describe briefly how they spent September 27th. Izvestia feels that a large series of such personal histories, supplemented, of course, by other material, will help to convey the rich diversity of human experience during "one day of the world". We hope that you will be willing to contribute to the success of this project, and share your experiences of September 27th with the millions of readers of Izvestia and of the forthcoming volume. What we ask specifically is that on the evening of September 27th you send us by collect wire a report of two or three hundred words on your personal history of that day. Will you be kind enough to let us know whether we can count on your cooperation? Sincerely yours, neceived for late Harry Freeman hf;rbf Assistant Manager

## BROMFIELD ASSOCIATES

175 HUNTINGTON AVE. BOSTON 15, MASS.

COPLEY 7-7161

AN ORGANIZATION FOR THE APPLICATION OF SCIENTIFIC MANAGEMENT

Dr. & Mrs. Wiener c/o Mr. Max Richter Kandlstrasse 6 Aalen, Wurttemberg Germany

September 19, 1960

Dear Dr. & Mrs. Wiener,

I had hoped this Monday morning's mail would make definite my return to Europe this month. Negotiations with our potential second English licensee have been continuing at an increasing tempo since my return. My last mailing included a many-paged Agreement which I felt would have evoked a "yes, but" or a call for personal settlement. With no answer today, I must conclude his solicitors are hard at it with more fortnights to elapse before I can move toward final signing.

You might be pleased to learn that Eilene and I won our National Class Championships racing in Long Island Sound last month. But the bigger victory came two weeks later when our 11 month old son won his first race directing affairs from a sleeping bag in the starboard bilge.

Having just returned from a week in bed with a virus, I feel qualified to warn of the changing climate. Do pace yourself and enjoy all.

I imagine you have returned from Bruxelles and are on your way to Italy. Per your itinerary, I'll write next to Professor Caianiello at the University of Naples.

My sincerest wishes for a good New Year.

Sincerely,

BROMFIELD ASSOCIATES

Morton Bromfield

MB:Imh

CARL ZEISS GESCHÄFTSLEITUNG Prof. Dr. G. Hansen 20. September 1960 Hs/Rd. Professor Dr. N. Wiener. Hotel Garni Sehr geehrter Herr Kollege, ich wurde heute morgen benachrichtigt, dass ein Herr vom MIT hier wäre, der sich für Interferometer interessiere, und wurde gefragt, ob ich ihn sprechen wolle, da der Bearbeiter der Interferometer - Herr Dr. Kinder - nicht im Hause ist. Ich bedaure sehr, dass ich in der Zeitnot der Tagesgeschäfte nicht mehr die Möglichkeit hatte, mich darüber zu unterrichten, mit wem ich sprechen würde. Ich habe mich erst nach unserer Unterhaltung darüber unterrichten können, worüber Sie gearbeitet haben und habe Ihr Buch über Kybernetik, das sich in unserer Bibliothek schon seit längerer Zeit befindet, in der Hand gehabt; ich hatte es bisher noch nicht gesehen. Ich bedaure sehr, dass ich mich nicht frühzeitig darüber unterrichten konnte, auf welchen Gebieten Ihre Interessen liegen, sonst hätte ich versucht, einen geeigneteren Gesprächspartner zu finden. Freilich wäre der einzige Gesprächspartner Herr Dr. Kinder gewesen, der aber heute leider nicht hier war. Herr Dr. Kinder hat seine Dissertation über Logistik in Münster gemacht und ist also wirklich Mathematiker. Es tut mir sehr leid, dass Sie aus unserer Unterhaltung den Eindruck haben mitnehmen müssen, dass wir kaum ein Thema fanden, über das wir uns verständigen konnten. Ich darf noch einmal wiederholen, dass ich mich freuen würde, wenn Sie Herrn Hardy einen Gruss ausrichten würden. Ich habe in den Jahren 1947 und 1948 mit ihm einen längeren Briefwechsel über Fragen der Nomenklatur im Bereich der Photometrie geführt. Er hat mir auch einige interessante und für mich wichtige Hinweise gegeben. Ich hoffe, dass Sie trotz dieser etwas verunglückten Unterhaltung Zeiss nicht in zu schlechter Erinnerung haben werden. Mit freundlichen Grüssen Ihr sehr ergebener Anlagen Sonderdrucke

Dear Professor N. Wiener:

I hope you may parden for a stranger to write a letter to you. but it is a great honor and pleasure for me to have this apportunity to write to you. though you don't know me, I heard your great academic fame.

research activity I have always hoped to be able to read your well-known books and articles. fortunately I had happened to read your great theory in others book through an acquaintance who had returned from the United States for a short time.

your theory, my pleasure could not expressed by words. at this moment & became again to pay reverence to you as a great scholar in this field. in my seminar & have introduced your sheary and emphasized the importance of your approach. so all our members your special attention to you as a great scholar in this field.

So easily your great book "Cybernetics" and others that I done beg you may impart the information of your remarkable research activity.

If you comply with my request, I will after my hearty thank are a representative of our seminar.

With best wisher and regards,

Thelijo Rher

so easily your great book" Cyberneties" and others that I done by you may import the information of your semakable research activity. will after my hearty thank we a representation of our seminar. of an deminar. With best wishers and regards. Theyorn

[ and 3/30/00

JAY W. STEVENS
254 FIFTH AVENUE
NEW YORK I, N. Y.

September 21, 1960

Mr. Norbert Wiener 53 Cedar Road Belmont, Mass.

Dear Mr. Wiener:

FEDERATION FOR HOME FIRE SAFETY
( A PRIVATELY SPONSORED NATIONAL ORGANIZATION)
DIRECTOR OF HOME FIRE SAFETY EDUCATION

INTERNATIONAL ASSOCIATION OF FIRE CHIEFS
(THE OFFICIAL ASSOCIATION OF FIRE CHIEFS)

DIRECTOR OF FIRE PREVENTION

HONORARY FIRE CHIEF OF 256 U.S. CITIES

SOME FORMER ACTIVITIES:

NATIONAL BOARD OF FIRE UNDERWRITERS 38 YEARS AS FIRE PREVENTION CHIEF

INTERNATIONAL ASSOCIATION OF FIRE CHIEFS
33 YEARS AS EXECUTIVE SECRETARY

PACIFIC COAST ASSOCIATION OF FIRE CHIEFS
38 YEARS AS SECRETARY-TREASURER

STATE FIRE MARSHAL OF CALIFORNIA 17 YEARS

FIRE MARSHAL AND ASSISTANT FIRE CHIEF OF PORTLAND, OREGON 4 YEARS I have spent 60 of my 75 years fighting fires and public apathy about fire safety. With the backing of the International Association of Fire Chiefs and the National Board of Fire Underwriters, I have traveled all across America teaching fire prevention. If you would like to know more about my work, ask any fire chief in the country.

Last year, fire prevention efforts began to show results. After 15 years of rapidly rising fire totals, the number of home fires in this country dropped for the first time.

Many fearful fire tragedies have been prevented. With your help, many more can be eliminated.

Your written statement of support would help me launch a new nationwide educational campaign designed to give every home-dweller intensive, individual fire safety training right in his own living room. Such training has never been offered before and is urgently needed. Few people escape pain and injury in home fires without prior drilling for fire emergencies. Small children suffer most of all.

This new campaign is being sponsored by the Federation for Home Fire Safety, a commercial organization designed to tackle this major problem, independent of the International Association of Fire Chiefs and other public fire bodies.

The Federation is producing an hour-long educational film, based on my experience and that of many fire authorities, which will be used as a teaching aid.

-2-We face but one roadblock: persuading families to devote the necessary time to fire safety training. That's why we are writing prominent people throughout the country for support. We know from experience that statements from opinion leaders help to crack the hard shell of indifference most people have toward fire safety. Enclosed are some of the statements we have already been authorized to issue. Would you be willing to add your voice? We hope you will find it possible to make this contribution toward eliminating the senseless tragedies of fire. No other requests for help will be made. Sincerely, Jay W. Stevens JWS/hl Enc.

I heartily agree about the need for an intensive educational effort in fire prevention and fire safety. The loss of life from fire can be sharply reduced if understanding replaces ignorance and carelessness. Senator Stuart Symington U.S. Senator from Missouri I am grateful for your note bringing to my attention the work you are doing in conjunction with the enlightenment of the public on the dangers of fire hazards in the home. The most dangerous hazards are those that are most familiar, and if you can help to bring this home to our citizens, then indeed we will have made great strides in correcting and suppressing home fire hazards. Senator Everett Dirksen U.S. Senator from Illinois It is vital that we have adequate and accurate information about fire prevention publicly available. You are to be commended in your effort. Senator Jacob K. Javits U.S. Senator from New York Our nation needs to reject false fire information which results in tragic loss of life and limb each year. Senator William Proxmire U.S. Senator from Wisconsin I heartily endorse this program to rid America of false fire information. Henry Fonda Stage and Screen Star If I have false fire information, so does my son .... and this must be changed! Arlene Francis Authoress and Television Star Our family is very grateful to you for your excellent training program. It has helped us teach our children the rules of fire safety at home, which is an obligation a parent dare not neglect. Jan Murray Television Comedian

September 22, 1960

Mr. William Bennett John Wiley and Sons 440 Park Avenue South New York 16, New York

Dear Mr. Bennett:

Enclosed you will find three recent photos of Institute

Professor Norbert Wiener of M.I.T., as you requested. None

of the three are formal portraits, but I think they are very

good candid shots which would be suitable for your proposed

use as a jacket illustration on your reprint of "Cybernetics".

When you are finished with the pictures, we would appreciate it very much if you would return them to us. If we can be of any further assistance, please do not hesitate to call on us.

Sincerely yours,

Virginia Taft

3 enclosures

c.c. Prof. Norbert Wiener

INDIANA UNIVERSITY BLOOMINGTON, INDIANA DEPARTMENT OF MATHEMATICS September 23, 1960 Mrs. Eva-Maria Ritter Secretary to Professor Wiener Department of Mathematics Massachusetts Institute of Technology Cambridge 39, Massachusetts Dear Mrs. Ritter: Dr. N. R. Goodman of the Space Technology Laboratories, Inc., Los Angeles, California, informs me that you were unable to supply him with an offprint Part II, of my paper with Professor Wiener in the Acta Mathematica, as you had none left. I have accordingly sent him a copy from my own stock. I have with me 12 copies of Part I and 23 of Part II. Let me repeat what I stated in my letter of June 2, that I will be very glad to send you 6 reprints of Part II in exchange for 6 of Part I. This would balance your collection as well as mine. Would you kindly mail the reprint of Professor Wiener's paper "Brain Waves and the Interferometer" published in J. Physiol. Soc. Jap. Vol. 18. No. 8 1956, to Dr. N. O. Hanson, Mayo Clinic, Rochester, Minnesota. I met him at Stanford recently and he expressed a keen interest in having this paper. I would like to know Professor Wiener's address in Europe if it is now stable. With kind regards, Sincerely yours, Peri marani P. R. Masani PRM:mel [aux 9/30/60] Buenos Aires, Septiembre 26 de 1960.
Al Proff. Norbert Wiener:

De mi Mayor Respeto:

Soy alumna de la Facultad de

Derecho y Ciencias Sociales de Bs. As. (argentina) donde cursoel Cuarto Año. Desde hace dos años soy "auxiliar docente" en
el INSTITUTE de DERECHO POLITICO y CONSTITUCIONAL de esa casa
de estudios, en tal carácter he realizado tareas de investigación sobre temas de Ciencia Política.

El año pasado, cuando leí la traducción castellana de su libro "The human use of human beings," Cibernetics and Society" y relacioné los conceptos por Ud. sostenidos con lo estudiado en las clases de Filosofía del Derecho sobre Lenguaje, Lógica y Cominicación, encontré gran campo de applicación para los temas de "Comportamiento Político" (Political Behavior). Fruto de mis estudios en ese sentido es el modestísimo trabajo que adjunto a la presente y que fuera presentado en el "Segundo Congreso Nacional de Ciencia Política" reunido en Bs. As. del 12 al 16 de agosto próximo pasado.

Yo se que es un gran atrevimiento dirigirme a Ud. y pretender que lea mi trabajo, pero las dudas que me plantea la investigación me llevan a hacerlo. Ninguno de los delegados estuvo muy de acuerdo con la posición referente a enfocar el estudio del Comportamiento Político dentro de la Ciencia Política y se consideró además que no hay que dejarse encandilar por las modernas teorías. El motivo aducido: la deshumanización. Los profesores Gil y Pierson de la Universidad de North Caroline me han prometido mantener correspondencia, pero son partidarios, precisamente, de enfocar los estudios de "Political Behavior" como método y no como formando parte de la Ciencia Política.

Es por estos motivos que me atrevo a escribirle para preguntarle:

1º.- Si cree en la posibilidad de una relación entre la teoría de la información y el political behavior.

- 2º.- Si en el Massachusetts Institute of Technology se estudia la Cibernética relacionada con losp problemas sociales.
- 3º.- Información Bibliográfica (leo inglés, pero mis conocimientos de matemática son rudimentarios).

Sin otro motivo y pidiendo disculpas por cualquier molestia que le ocasione, le saluda respetuosamente

Zulema J. Escobar Cabrié/

### Dirección

Juan B. Alberdi 2702 - 8º Piso Capital, Buenos Aires,
ARGENTINA

Ians 4-28-61]

# Saturday Review 25 West 45th Street New York 36. N. Y.

John Lear Science Editor

September 28, 1960

Dear Dr. Wiener:

The State Department has sent the enclosed check to you as a token fee covering use of your piece on the responsibilities of the intellectual in society.

Best wishes to you.

Sincerely,

/hms Enc.

Dr. Norbert Wiener Massachusetts Institute of Technology Cambridge, Massachusetts - ---PURDUE UNIVERSITY SCHOOL OF ELECTRICAL ENGINEERING LAFAYETTE, INDIANA Sept. 28, 1960 Prof. Norbert Wiener Mathematics Dept. Mass. Inst. of Tech. Cambridge 39, Mass. Dear Prof. Wiener, The attached letter, which is going to all of our speakers, is self-explanatory. I should like to ask you an additional favor. The faculty at Purdue runs a course called "Great Issues" for seniors in the School of Science, Education, and Humanities. There will be between 500 and 600 students enrolled in this course next spring, and each week there is a distinguished visiting speaker. We wonder if you would be willing to address this group on Thursday, April 13, 1961, for 50 minutes. If so, there would be an additional honorarium of \$150. Such a speech, of course, would not have to be entirely new, and could in fact be quite similar to any of several of your recent speeches which I have read. If you wished to do this, we could schedule your paper at our Information and Decision Processes Symposium for either Thursday afternoon or Wednesday afternoon, as you request. As offered in my original letter to you, we plan to meet you at the airport at either Chicago or Indianapolis, as you choose, and drive you to Lafayette. We will make arrangements for this later. Very truly yours, Robert E. Machol

R. Bellman, Rand Corp. Memo to: K. L. Chung, Syracuse Univ.B. Dunham, IBM Corp. H. H. Goode, Univ. of Michigan T. C. Koopmans, Yale Univ. S. Moriguti, Univ. of Tokyo H. Raiffa, Harvard Univ. H. Robbins, Columbia Univ. L. J. Savage, Univ. of Chicago N. Wiener, Mass. Inst. of Tech. R. E. Machol, Purdue University From: Symposium on Information and Decision Processes, April 12-14. Subject: 1961. Purdue University, Lafayette, Indiana The list of speakers for our conference is now complete, and is as noted above. We have already had some preliminary publicity; it is now time to formalize our plans and print brochures. With this in mind, I would appreciate receiving from each of you two items of information. 1) The title of your paper. Of course I would prefer a firm title, but if you wish, I can list your given title as tentative; or if necessary I can simply list an area within which you will speak. However, I must have at least the latter, as an absolute minimum. 2) Your preference, if any, for time of speaking. There will be five sessions (Wednesday and Thursday afternoons, Wednesday, Thursday, and Friday mornings) with two papers in each session. I am in hopes that most of you will plan to be with us for the entire five sessions; and even if you do not so plan, that you will give me freedom to schedule your paper with another of related subject. However, I will try to schedule you according to any preference you may indicate. The proceedings of last years conference have now been published, by McGraw-Hill, under the title of "Information and Decision Processes" and under my editorship. It does not now appear that we will wish to publish a proceedings of this conference, but if this should change I will let you know. I will also write you at a later date about travel and accommodations. Robert F. Machol School of Electrical Engineering cc: Symposium Committee (Weiler, Reiter, Bogdanoff, Randolph, Bartlett) Adult Education (Glancy)

42-18 216 Street Bayside 61, New York September 28, 1960 Dear Dr. Wiener. I am a senior at Bayside High School. Last term I submitted the enclosed article to our school science publication; it was rejected though it had met the approval of several members of the faculty. I subsequently submitted the article to Dr. R. D. James, editor of "The American Mathematical Monthly". He claimed my argument was invalid as the logarithm of a real number is unique. It has been my impression that, as the real numbers may be considered a subclass of the complex number system, the logarithm of a real number will admit of the addition of 2n Wi. I would be very grateful if you could find the time to read my article and send me a criticism. Thank you very much. Yours truly, mehael Weinless Michael Weinless [ ans 2/17/61] UNION CARBIDE PLASTICS COMPANY . DIVISION OF



RIVER ROAD, BOUND BROOK, N. J.

September 30, 1960

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

Dear Professor Wiener:

The Union Carbide Plastics Company Branch of the Scientific Research Society of America (RESA) wishes to extend you a cordial invitation to visit our laboratories and give a talk on electronic brains or a related subject of your choice. The meeting would be a joint one with the RESA Branches of International Nickel Company and Cities Service Research and Development Company. A majority of the group would be chemists, and a total attendance of approximately one hundred can be anticipated. We would prefer that your lecture be on as high a technical a level as you consider appropriate for an audience of this type.

We would like to schedule your talk for some time between now and the early part of March, 1961 (except February). The meeting would be on a week night, preferably a Thursday. An honorarium of one hundred dollars (\$100.00) will be given for this talk and travel expenses will be reimbursed.

If you expect to be available, I would appreciate your giving us a choice of two or three dates. If not, an early reply will assist us in making other plans. I shall look forward to hearing from you.

Very truly yours,

Robert Barclay, Jr. Program Chairman

Robert Barelay, Jr.

UCPC Branch, RESA

RB:hlk

Massachusetts General Hospital
Boston 14 IN BELMONT IN BOSTON MCLEAN HOSPITAL GENERAL HOSPITAL BAKER MEMORIAL ALFRED H. STANTON, M.D. PHILLIPS HOUSE PSYCHIATRIST - IN - CHIEF BURNHAM MEMORIAL FOR CHILDREN HALL-MERCER HOSPITAL STORROW HOUSE HUNTINGTON MEMORIAL HOSPITAL CONVALESCENTS) VINCENT MEMORIAL HOSPITAL DEAN A. CLARK, M.D. GENERAL DIRECTOR September 30, 1960 Prof. Norbert Wiener c/o Prof. Caianiella University of Naples Naples, Italy Dear Professor Wiener: Thank you very much for your letter. I am sorry that I have not followed up sooner with more details than those you have probably received in the letter from Mrs Ritter. As she perhaps described in her letter, I have made further tests concerning the possibility that the sharp peak in the power spectrum for the correlogram that you had planned to use as an illustration for the book, was an artifact due to crosstalk from another channel of that same recording which contained a 10 per second sine wave from an oscillator. The test that I made was simply to crosscorrelate the EEG channel with the 10/sec sine wave, and the result showed a 10/sec oscillation in the crosscorrelogram; this result indicates almost conclusively that the peak does, at least in part, derive from the oscillator. (We have not yet examined further the dip which appeared prominently on one side of the peak in the autocorrelogram of the EEG.) With this result in hand, we have been pushing to obtain power spectra for other EEG recordings of 45 minutes duration, and Mr. Robinson has been successful in getting the enclosed curves through the I.B.M. 709 computer program at the Institute; the raw data for these power spectra were some of the autocorrelograms for another subject which I showed you last May. We have discussed these results with Professor Rosenblith, and we all have several misgivings about them, but because of the pressure of time concerning the publication of the second edition of your book, we have decided that the material should be sent to you without further delay so that you can decide whether you think any of it is suitable. Our comments, reservations, and proposals for further checking are attached to the data themselves. in Robinson's leller Sincerely yours,



SCHOOL OF ENGINEERING OFFICE OF THE DEAN

CAMBRIDGE 39, MASSACHUSETTS

September 30, 1960

Professor Norbert Wiener
In care of Professor Caianiello
University of Naples
Institute of Physics
Naples, Italy

Dear Norbert:

At this time I am called upon to evaluate the future of Assistant Professor Amar G. Bose of the Department of Electrical Engineering, who has been nominated for promotion to the rank of Associate Professor by Professor Peter Elias, Head of the Department.

In support of this nomination, it would be very helpful if I could have documentation of his abilities from people who are familiar with his work. I know that Professor Bose worked closely with you and with Professor Lee both in his doctoral thesis work and in the preparation of your lectures on "nonlinear Problems in Random Theory." I would like your evaluation of the contribution which his own thesis work represented and also your opinion as to what he has contributed in his association with yourself, Professor Lee, and the graduate students in Professor Lee's group.

I am particularly interested in your comments on his creative imagination and intellectual strength. Do you consider him a person who will continue to grow intellectually and seek the important problems as his field develops? Has he shown true stature as a professional man? Does he demonstrate adequate initiative by spontaneously probing into strange territory? Is he likely to become one of the top few men in the country in his field? Answers to these questions in terms of what you can state that he has done would aid me greatly.

I am sure that you recognize that comments of this kind are valuable only to the extent that they are frank, and I wish to assure you that any information you supply will be held in the strictest confidence.

Sincerely yours,

Gordon S. Brown, Dean School of Engineering

Hope your margaret one having a wonderful time ausward by 9,

## The Technology Press



MASSACHUSETTS INSTITUTE OF TECHNOLOGY CAMBRIDGE 39, MASSACHUSETTS

September 30, 1960

Professor Norbert Wiener c/o Professor Cajaniello University of Naples Naples, Italy

Dear Professor Wiener:

I am very sorry that you did not receive the annual report of sales and royalties that we sent to you on August 19, addressed to the address in Würrtenberg that I got either from your office or from your daughter in Sandwich. I enclose a copy of this report.

The check for royalties due you, amounting to \$307.37, I deposited in your account in the Cambridge Trust Company, as you requested. You should have got some sort of notice of this deposit, but in any case I am sure it is there for you to draw on.

Dr. Barlow and his associates have done some more work on your data. Yesterday they finally managed to get a run on the new M.I.T. computer, and they now have some misgivings about the data that you propose to use in the new brain-wave chapter. Charles Robinson has talked over the results with Dr. Barlow and with Walter Rosenblith, and he tells me that he is writing you on these results and the problems they create, so that they can get your feelings about what adjustments ought to be made in your new chapters.

Tobey Raisbeck has gone over all the supplementary chapters and has done quite a bit of editing, mostly in the direction of cutting down some sections in order to avoid what he felt was unnecessary duplication or repetition. You will get a chance to approve whatever changes are made, either before the new chapters are sent to the printer or after they are in galleys.

The revised chapters of the first edition are now being set in type by Clowes in England. We are holding up the supplementary chapters until we get your decision on what changes should be made in the light of the new analyses of your data by Dr. Barlow and his associates.

Professor Norbert Wiener -2- September 30, 1960 It was good to have Tobey and Barbara Raisbeck for neighbors in Sandwich during the month of August. You certainly have some smart and attractive grandchildren, and I hope we will see more of them in future summers. I am glad to hear that you and Mrs. Wiener have had such a successful trip. Please let me know of any changes in address so that we can be sure to get proof to you promptly. Very truly yours, Lynwood Bryant Lynwood Bryant Director LB:SS

58A Warren Road,
ASHFORD,
Middlesex, ENGLAND.

30th September, 1960.

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

Dear Prof. Wiener,

Almost every active scientific worker finds that from time to time he has an idea which he feels to be important or stimulating, and yet not suitable for publication in a learned journal. The idea is in fact 'half-baked', or at least 'partially baked', and the baking may demand more time than he can spare.

I have proposed to Messrs. William Heinemann that an anthology of 'partially baked ideas' should be published. They have promised support for the venture if there is adequate response from potential contributors.

We hope that the volume will consist of from 100 to 200 articles, ranging in length from a few sentences to about 3,000 words. On this basis it will hardly be practicable to offer any worth-while financial remuneration to contributors, although a copy of the book will be available to each contributor at a reduced price and he will be entitled to 75% of Heinemann's fee for any subsequent reprinting of his article elsewhere. The general rule concerning length is that it should be roughly proportional to 'bakedness', the more far-fetched ideas being allotted least space.

The exposition should be intelligible to the average school science teacher, and abundant use should be made of visual aids in the form of simple line-drawings, diagrams, etc.

I am writing to you to find out whether you are interested in the general idea and whether you might be willing to contribute an article to the proposed anthology.

I have appended some further details on the enclosed sheet.

Yours sincerely, with him regards,

Jack Good

I. J. Good

[ aus 1/9/6]]

The Scientist Speculates.

An anthology of partly-baked ideas.

Editor:

I. J. Good, M.A., Ph.D., Deputy Chief Scientific Officer, Admiralty Research Laboratory, Teddington, Middlesex, England.

### Associate Editor:

A. J. Mayne, M.A., B.Sc., Leeds University Electronic Computing Laboratory, Eldon Hall, 76 Vesper Road, Leeds 5, England.

### American Editors:

M. L. Minsky, B.A., Ph.D., Assistant Professor of Mathematics, Massachusetts Institute of Technology, Lexington 73, Mass., U.S.A.

O. G. Selfridge, Ph.D., Group Leader, Group 34, Lincoln Laboratories, Massachusetts Institute of Technology, Lexington 73, Mass., U.S.A.

withrgane Admiralty Research Laboratory, Teddington, Middlesex, England Dear Friend. Although the posting of reprints is a weariness unto the bones, I am sending you a list of my serious publications with my compliments. Yours sincerely, IRVING JOHN GOOD, M.A., Ph.D. Abbreviations: 7LMS, J. London, Math. Soc. PCPS, Proc. Cambridge Philos. Soc. Q7M, Q. J. Math., Oxford. 7RSS B, J. Roy. Statist. Soc. Ser. B. AMS, Annals Math. Statist. Biom., Biometrika (I have not published in Biometrics). B7PS, Brit. I. Philos. Sc. 1. The approximate local monotony of measurable functions, PCPS, 36 (1940), 9-13.2. The fractional dimensional theory of continued fractions, PCPS, 37 (1941), 199-228. (Smith's Prize essay.) 3. Some relations between certain methods of summation, PCPS, 38 (1942), 144-165. 4. Note on the summation of a classical divergent series, 7LMS, 16 (1941), 180-182. 5. On the regularity of a moment method of summation, 7LMS, 19 (1944), 141-143. 6. On the regularity of a general method of summation, 7LMS, 21 (1946), 110-118. 7. Normal recurring decimals, 7LMS, 21 (1946), 167-169. (The 'teleprinter problem'.) 8. A note on positive determinants, 7LMS, 22 (1947), 92-95. 8a. (Jointly with Dr. G. E. H. Reuter.) Bounded integral transforms, OM, 19 (1949), 224-234. 12. The number of individuals in a cascade process, PCPS, 45 (1949), 360-363. 13. Probability and the Weighing of Evidence (London, Charles Griffin; New York, Hafners; 1950, pp. 119). 14. A proof of Liapounoff's inequality, PCPS, 46 (1950), 353. 17. On the inversion of circulant matrices, Biom., 37 (1950), 185-186. 18. Bounded integral transforms, II. *Q7M*, 1 (1950), 185-190.

- 20. Random motion on a finite Abelian group, PCPS, 47 (1951), 756-762.
- 26. Rational decisions, 7RSS B, 14 (1952), 107-114.
- 29. A generalisation of Dirichlet's integral, *Edin. Math. Notes*, No. 38 (1952), 7-8.
- 33 and 33a. Skin banks, *The Lancet* (Aug. 9, 1952, and Feb. 7, 1953), 289 and 293-294.
- 36. The serial test and other tests for randomness, PCPS, 49 (1953), 276-284.
- 37. (Jointly with F. G. Foster.) On a generalisation of Pólya's random-walk problem, QJM, 4 (1953,) 120-126.
- 38. On the population frequencies of species and the estimation of population parameters, *Biom.*, 40 (1953), 237-264.
- 43. Mathematical tools, chapter 3 of *Uncertainty and Business Decisions* (Liverpool, second edn. 1957), pp. 20-36; based on a symp. in the Economics section of the British Association, 1953. (Similar to No. 26.)
- 52. On the substantialization of sign sequences, Acta Cryst., 7 (1954), 603.
- 55. The joint distribution for the sizes of the generations in a cascade process, *PCPS*, 51 (1955), 240-242.
- 56. A new finite series for Legendre polynomials, PCPS, 51 (1955), 385-388.
- 62. Conjectures concerning the Mersenne numbers, MTAC, 9 (1955), 120-121.
- 77. Some terminology and notation in information theory, *Proc. Institution Elec. Engrs.*, *Part C* (3), 103 (1956), 200-204.
- 78. On the weighted combination of significance tests, *JRSS B*, 17 (1955), 264-265.
- 82. The surprise index for the multivariate normal distribution, AMS, 27 (1956), 1130-1135.
- 83. On the estimation of small frequencies in contingency tables, 7RSS B, 18 (1956), 113-124.
- 84. The likelihood ratio test for Markoff chains, *Biom.* 42 (1957), 531-533, and 44 (1957), 301.
- 85. Which comes first, probability or statistics? J. Inst. Acturies, 82 (1956), 249-255.
- 86. (Jointly with Dr. G. H. Toulmin.) The number of new species, and the increase of population coverage, when a sample is increased, *Biom.* 43 (1956), 45-63.
- 110. A classification of rules for writing informative English, Methodos, 7 (1955), 193-200.
- 123. On the serial test for random sequences, AMS, 28 (1957), 262-264.
- 125. Variable-length multiplication, Computers and Automation, 6 (1957), 54.
- 127. Saddle-point methods for the multinomial distribution, AMS, 28 (1957), 861-881. (See No. 238.)

- 130. Distribution of word frequencies, Nature, 179 (1957), 595.
- 133. On the numerical solution of integral equations, MTAC, 11 (1957), 82-83.
- 136. (Jointly with Dr. R. B. Dawson.) Exact Markov probabilities from oriented linear graphs, AMS, 28 (1957), 946-956.
- 140. Legendre polynomials and trinomial random walks, *PCPS*, 54 (1958), 39-42.
- 141. Random motion and analytic continued fractions, PCPS, 54 (1958), 43-47.
- 142. (Jointly with K. Caj Doog.) A paradox concerning rate of information, Information and Control, 1 (1958), 113-126. (See Nos. 192 and 210.)
- 146. The interaction algorithm and practical Fourier analysis, \$\mathcal{T}RSS B\$, 20 (1958), 361-372. (See No. 209.)
- 169. How much science can you have at your fingertips? IBM J. Res. Dev., 2 (1958), 282-288.
- 174. Significant tests in parallel and in series, J. Am. Stat. Ass. 53 (1958), 799-813.
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The above list dose not include numerous published contributions to discussions, mainly at the Royal Statistical Society, and at London Symposia on information theory; although these contributions were intended to be original. Reviews of articles and books have also been excluded: I have reviewed books by Hartree, von Wright, Quenouille, Kolmogorov and Gnedenko, Savage, Blackwell and Girschick, Meyer (ed.), NBS (Monte Carlo), Jeffreys, Herdan, Hogben, Spencer Brown, von Mises, Carnap, Popper, Tou, and Beer.

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