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CORRESPONDENCE Feb. 1-14, 1961

N. WIENER MC 22

News from the . . .

AMERICAN MATHEMATICAL SOCIETY

190 Hope Street, Providence 6, Rhode Island

A SYMPOSIUM ON MATHEMATICAL PROBLEMS IN THE BIOLOGICAL SCIENCES, co-sponsored by the Office of Ordnance Research and the National Science Foundation, will be held in connection with the April Meeting of the American Mathematical Society at the Hotel New Yorker in New York City, on April 5, 6, and 7.

PROGRAM OF THE SYMPOSIUM ON MATHEMATICAL PROBLEMS IN THE BIOLOGICAL SCIENCES

WEDNESDAY, April 5

9:20 A.M. - Terrace Room (off Main Lobby)

First Session:	Role of information theory, nervous systems and computers
Chairman:	Professor Arthur W. Burks, University of Michigan
Discussion Leader:	Professor Norbert Wiener, Massachusetts Institute of Technology
9:20	Symposium convenes
9:30 - 10:20	Mathematical models in the behavior of the central nervous system Professor Herbert D. Landahl, Committee on Mathematical Biology, University of Chicago
10:30 - 11:20	Machine models of self-reproduction Dr. Edward F. Moore, Bell Telephone Laboratories
11:30 - 12:20	Mathematical problems in heuristic programming Professor Marvin L. Minsky, Massachusetts Institute of Technology

2:00 P.M. - Terrace Room (off Main Lobby)

Second Session:	Biochemistry
Chairman:	Dr. Stanislaus Ulam, Los Alamos Scientific Laboratory
2:00 - 2:50	Protein synthesis Professor Paul C. Zamecnik, Harvard Medical School
3:00 - 3:50	(Title to be announced.) Professor Max Delbruck, California Institute of Technology
4:00 - 4:50	Bio-chemistry: sterile or virgin for mathematicians? Professor Arthur B. Pardee, Virus Laboratory, University of California, Berkeley

THURSDAY, April 6

10:00 A.M. - Terrace Room (off Main Lobby)

Third Session:	Short papers
Chairman:	Dr. John Jacquez, Sloan-Kettering Institute for Cancer Research
10:00 - 10:20	Analysis of chemical reaction occurring with migration Dr. Norman Shapiro, National Institutes of Health
10:30 - 10:50	Efficient coding for the desoxyribonucleic channel Dr. Solomon W. Golomb, Jet Propulsion Laboratory, California Institute of Technology
11:00 - 11:20	A study of Lerman models for diffusion and captures of excitons in DNA Dr. Walter Goad, Los Alamos Scientific Laboratory
11:30 - 11:50	Mathematics of pattern recognition for the ECG Professor Max A. Woodbury, New York University, University Heights

2:00 P.M. - Terrace Room (off Main Lobby)

Fourth Session:	Enzymes, hormone circulation, and medical diagnosis by computers
Chairman:	Dr. Richard E. Bellman, The RAND Corporation
2:00 - 2:50	Medical diagnosis and modern decision making Dr. Robert Ledley, National Biomedical Research Foundation
3:00 - 3:50	Mathematical problems in modern physiology Dr. John Jacquez, Sloan-Kettering Institute for Cancer Research
4:00 - 4:50	Mathematical aspects of adaptive control Dr. Robert Kalaba, The RAND Corporation

FRIDAY, April 7

10:00 A.M. - Terrace Room (off Main Lobby)

Fifth Session:	Enzymology and kinetics, intracellular information transfer
Chairman:	Professor Anthony F. Bartholomay, Harvard Medical School
10:00 - 10:50	Enzymology and kinetics Professor Irwin W. Sizer, Chairman of the Department of Biology, Massachusetts Institute of Technology
11:00 - 11:50	Intracellular information transfer Professor Alexander Rich, Department of Biology, Massachusetts Institute of Technology

3:15 P.M. - Grand Ballroom (Second Floor)

Sixth Session:	Short papers
Chairman:	Professor Claude E. Shannon, Massachusetts Institute of Technology
3:15 - 3:35	A study of combinatorial problems in patterns of growth Dr. Stanislaus Ulam, Los Alamos Scientific Laboratory
3:45 - 4:05	From chemotherapy to computers to trajectories Dr. Richard E. Bellman, The RAND Corporation
4:15 - 4:35	Growth of monodisperse populations of mammalian cells in vitro Dr. Donald Petersen, Los Alamos Scientific Laboratory

LDB:ef
3/61 (8)

PURDUE UNIVERSITY
DEPARTMENT OF HISTORY, GOVERNMENT AND PHILOSOPHY
LAFAYETTE, INDIANA

February 1, 1961

each lecture $150
when proceedings have been printed, an additional $100
also expenses.

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

Dear Professor Wiener:

We are delighted to learn from Professor R. E. Machol of our School of Electrical Engineering that you will be able to speak to our Great Issues class on Thursday, April 13, at 11 A.M. This class is made up of some 600 seniors of our School of Science, Education and Humanities. We like to reserve the last fifteen minutes of the fifty-minute period for questions from the students.

In order to fit generally into the theme which we shall be following at that time, I am wondering whether it would be agreeable to you to focus your remarks on the question of "Ethical Responsibilities of the Scientist." This indeed may be what you already have in mind, but I thought it might be useful to offer this suggestion.

All of us associated with the course look forward very much to your contribution.

Sincerely yours,

James A. Huston

James A. Huston
Professor of History

JAH:km

Transportation: LaGuardia

4/11/61 Boston 10 a.m. (N.E. 111) New York 11 02 12 45 (TWA 347) Indianapolis 4 07

4/13/61 Indianap. 3 50 (332 TWA) Pittsburgh 6 02 6 35 (TWA 388) Boston 8:43

[and 3/29/61]

COLLOQUES PHILOSOPHIQUES INTERNATIONAUX DE ROYAUMONT

Tours, le 1er Février 1961

Monsieur le Professeur,

Un colloque consacré au "Concept d'information dans la Science contemporaine" aura lieu à Royaumont du 7 au 11 Septembre 1961. — changé maintenant 6-10 Juillet 1961

Le Comité des Colloques Philosophiques me charge de vous demander si vous pourriez participer à ce colloque et faire une conférence sur un sujet qui vous conviendrait.

Si, comme nous l'espérons bien vivement, votre réponse est positive, le Secrétariat du Comité me demande de l'en informer pour le 20 Février; il vous adressera alors toutes les indications utiles sur l'organisation du congrès.

Espérant que cette lettre ne sera point importune, je vous prie de bien vouloir agréer, Monsieur le Professeur, l'expression de mes sentiments respectueux.

G. Simondon

G.SIMONDON

192 rue d'Entraigues

TOURS (Indre & Loire)

France-

[ans 3/8/61]

MAGYAR TUDOMÁNYOS AKADÉMIA
HUNGARIAN ACADEMY OF SCIENCES

BUDAPEST
V., ROOSEVELT TÉR 9.

TELEGRAPHIC ADDRESS:
AKADÉMIA BUDAPEST

1 February, 1961

NO.: 60.238/1/61

Professor
Norbert W i e n e r
Massachusetts Institute of Technology
Cambridge 39, Mass.

Dear Professor W i e n e r ,

We have been very glad to learn from your letter of 9 January how much you enjoyed your stay in Budapest.

As to the name of the professor who invited you to Hungary in Moscow, he is Dr. Ottó Benedikt, member of the Hungarian Academy of Sciences, Director of the Research Institute for Automatization of the Academy. His address is: Budapest, XI.Egri József-u 18. The lady you mention in your letter is Miss Susy Szentgyörgyi, scientific research worker in the same Institute. We have certainly conveyed your thanks to Prof. Benedikt, as you requested in the letter.

With best wishes, I remain

yours sincerely

P. Vas

/P.Vas-Zoltán/
Head of the International
Relations Section

for Mrs. Wiesel

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

PUBLIC HEALTH SERVICE • BETHESDA 14, MD.

NATIONAL INSTITUTES OF HEALTH
OLiver 6-4000

February 2, 1961

REFER TO: NBI-EP
SF-9201

Professor Norbert Wiener
Massachusetts Institute of
Technology
Cambridge 39, Massachusetts

Dear Dr. Wiener:

An application has been submitted by the Massachusetts General Hospital in behalf of Dr. John Barlow for a Senior Fellowship Grant in the field of neurophysiology.

The purpose of these grants is to encourage and support development of the academic and research careers of promising medical scientists. Candidates are expected to have given clear and substantial evidence of high potential for a career in research.

It will be appreciated if you will give us your evaluation of the proposed candidate's personal characteristics, previous training and experience, and research and teaching abilities as they relate to the purpose for which this grant is intended.

In addition, your frank opinion of the suitability of the institution as the recipient of a Senior Fellowship Grant in neurophysiology is requested.

Sincerely yours,

Elizabeth C. Hartman

Elizabeth C. Hartman
Head, Training Section
Extramural Programs
National Institute of Neurological
Diseases and Blindness

Enclosure

[ans 2/9/61]

NATIONAL INSTITUTES OF HEALTH
Bethesda 14, Maryland

INFORMATION AND POLICY STATEMENT

on

SENIOR FELLOWSHIP GRANT PROGRAM

October 1, 1960

DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
Public Health Service

NATIONAL INSTITUTES OF HEALTH

SENIOR FELLOWSHIP GRANT PROGRAM

(Supersedes Part VI. Senior Research Fellowships, Vol. II, "Grant and Award Programs of the Public Health Service")

Availability and Purpose

Senior Fellowship Grants are awarded by the National Institutes of Health, Public Health Service, to institutions in the United States in behalf of U. S. citizens or those who have filed a Declaration of Intent. These fellowships are intended (1) to encourage and support the development of professional personnel for academic and research careers in medicine, dentistry, public health, and related areas; and (2) to aid in stabilizing careers in such fields.

Status of Senior Fellows

The recipient of a Senior Fellowship is directly responsible to the grantee institution for his training and research activities.

Method of Applying

Requests for Senior Fellowship Grants must be prepared on application forms supplied by the National Institutes of Health. Applications should be received in the Division of Research Grants by March 1 for final review at the June council meetings; by July 1 for final review at the October-November council meetings; and November 1 for final review at the February-March council meetings. Notification of final action on applications will be provided by the appropriate Institute or Division of the National Institutes of Health. 1/

Review Procedures

Each application is reviewed by a committee of nongovernmental scientists and by an appropriate National Advisory Council.

1/ Following are the units of the National Institutes of Health awarding these fellowships: Division of General Medical Sciences; National Cancer Institute; National Heart Institute; National Institute of Allergy & Infectious Diseases; National Institute of Arthritis & Metabolic Diseases; National Institute of Dental Research; National Institute of Mental Health; National Institute of Neurological Diseases & Blindness.

Eligibility Requirements

Each United States medical school, dental school, school of public health, university graduate school, or other appropriate institution [2/] may submit applications for Senior Fellowship Grants.

Qualifications of Candidates

Senior Fellows will be selected for support on the basis of demonstrated promise of the candidates for careers in independent research and teaching; therefore, it is expected that candidates nominated by a school or other appropriate institution will have demonstrated high potential for a research or academic career, and have had, after the doctoral degree, at least five years of relevant research experience.

Information Required

The application for a Senior Fellowship Grant should contain a general statement of the candidate's research and teaching plans for the 5-year period of support requested and a statement by the institution of its plans for the development of the fellow for an academic or research career. A "Personal Data Statement" from the candidate indicating citizenship status is also required as a part of the application. (See "Availability and Purpose" above.)

The institution is required to file a statement that the fellowship will be additive and not substitutive. In the event a candidate is selected from staff currently paid by regular institutional funds, the institution must give assurance that the funds released will be applied toward the employment of additional professional staff. If other than institutional funds are to be freed, a statement to that effect should be submitted.

Duration and Amount of Grant

Senior Fellowship Grants are awarded for 5-year periods and are renewable in certain instances for an additional 3-year period. It is anticipated that this grant will enable the fellow to secure a permanent academic post during the first 5-year period; if not, during an additional 3-year period. The grants are paid to the grantee institution for salary, expenses of the fellow directly related to the purposes of the award, and indirect costs on the total of these two items.

2/ For clarification as to whether an institution may appropriately apply, write to the Institute or Division concerned; if in doubt as to which Institute or Division is concerned, write to the Division of Research Grants.

Salary

The sponsoring institution shall determine the yearly salary level to be requested, including any anticipated increases in salary during the 5-year period. The salary level requested should be based on the candidate's training, experience, and accomplishments. Social security and other fringe benefits may be included when appropriate. The relationship of the proposed salary to the salary structure of the department concerned and to any additional salary that might be planned by the sponsoring institution should be explained in the application. Sums requested for annual salaries should be calculated on a 12-month basis.

The salary to be awarded by the National Institutes of Health shall be individually determined at the time of review. Other Public Health Service grant and award funds may not be used to increase the amount so determined. Except for institution-wide salary increases, any change in the salary level of support from the National Institutes of Health would require recommendation of approval by the National Advisory Council concerned.

Allowances

An allowance up to $7,500 a year for expenses directly related to the purposes of the award may be provided upon adequate justification by the grantee institution, and upon favorable recommendation by the reviewing committees and by the appropriate National Advisory Council The funds for these purposes must be expended under the rules governing the use of research grant funds. If grant support additional to the $7,500 is needed, a separate application may be submitted to the Public Health Service or to any other agency or foundation.

Transfer of Senior Fellows

Although Senior Fellowship Grants may not be transferred from one institution to another, when a fellow moves to a new location, the new institution may submit an application in his behalf.

Termination Before Expiration of Fellowship

If either the fellow or the grantee institution elects to terminate the fellowship for any reason, each is obligated to notify the supporting Institute or Division of the National Institutes of Health with certification of the date of termination.

Other Information

The policy rules prescribed for research grants govern the administration and operation of Senior Fellowship Grants. (See Part I, Vol. I, "Grant and Award Programs of the Public Health Service.")

ST. MARY'S SEMINARY
600 NORTH PACA STREET
BALTIMORE 1, MARYLAND

February 2, 1961

Dear Dr. Wiener,

It is the policy of St. Mary's Seminary that in order for a seminarian to obtain his A. B. degree he pass satisfactorily the comprhensive philosophy exams put out by Princeton University. However, he must also write a dissertation. The comprehensives are given at the end of second philosophy year (senior year of college), the same time that the dissertations are due.

I am now beginning to work "full time" on my dissertation and it is on this point that I am writing to you. I have chosen for my topic --- "Norbert Wiener . . . Cybernetics".

I am not a very proficient mathematician and am less a philosopher, though I am working hard on the latter now. Of course I mean that last remark as no reflection on the field of math. I fully realize that you are a very busy man, to say the least, but I would greatly appreciate any aid that you might be able to give me so as to give the proper approach to my dissertation.

Please accept my sincere thanks for your time and trouble.

Respectfully,

Robert F. Kiely

Robert F. Kiely

[ans 2/9/61]

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New Address: Kreuzstr. 21

Herrn
Professor Norbert Wiener
c/o Massachusetts Institute of Technology

Cambridge 39, Mass.

3. 2. 1961 vW/f

Sehr geehrter Herr Professor!

Darf ich Sie an mein Schreiben vom 31. 10. 1960 erinnern. Wie steht es mit der Neuauflage Ihres CYBERNETICS-Buchs? Sie wissen, wie sehr wir daran interessiert sind.

Als Anlage sende ich Ihnen einen Prospekt unserer Frühjahrsneuerscheinungen, aus dem Sie ersehen, daß wir auch das Buch von Präsident Kennedy in Deutschland herausgebracht haben.

Mit freundlichen Grüßen

Ihr

v. Wehrenalp

Anlage

Mitglied des Börsenvereins des Deutschen Buchhandels Frankfurt am Main

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2/3/61 For Dr Norbert Wiener
Please see No 15 for your course. This "Advance Notice" has been given wide distribution over the United States.
Sincerely, Harry Tallman

UNIVERSITY OF CALIFORNIA
UNIVERSITY EXTENSION

HAROLD LAMONT TALLMAN
ASSISTANT HEAD, PHYSICAL SCIENCES EXTENSION

6501 ENGINEERING BUILDING II
LOS ANGELES 24, CALIFORNIA

GRANITE 3-0971, BRADSHAW 2-6161
EXTENSION 473 OR 9421

Answer best regards to Mrs. Wiener please.

UNIVERSITY OF CALIFORNIA

UNIVERSITY EXTENSION
Southern Area

ADVANCE NOTICE
OF
SHORT COURSES 1961

OFFERED BY ENGINEERING EXTENSION AND PHYSICAL SCIENCES EXTENSION
(dated January 27, 1961)

This is advance notice of the short courses which Engineering Extension and Physical Sciences Extension, University of California, Los Angeles, will conduct on the UCLA Campus during 1961 on the dates indicated.

Each course is of two weeks or less duration, normally meeting from 8 a.m. to 5 p.m. daily, Monday through Friday -- 2 units of 400 level professional credit is granted for two week courses -- prerequisite is a Bachelor's degree in Engineering or Science or the equivalent -- fee for each course is as indicated, which includes textbooks or the use of them and parking permit (does not include lodging, meals, or banquets, except as listed for Course No. 2 only) -- enrollment in each course will be limited.

A separate printed brochure for each course (with Registration Form included) will be mailed out three months before the start of each course. Any questions concerning the courses should be mailed or phoned to:
Sam Houston, Engineering Extension, Room 6266 Engineering Building II, University of California, Los Angeles 24, California, (BRadshaw 2-6161, Ext. 307), or
H. L. Tallman, Physical Sciences Extension, Room 6501 Engineering Building II, University of California, Los Angeles 24, California, (BRadshaw 2-6161, Ext. 9421).

Classes
Lectures
Conferences
Short
Courses
Concerts
Films
Open
to the
public

1. Electronic Packaging for Design Engineers -- March 6 - 17, 1961.
   Instructor: Sol Maniloff, Project Engineer, Frank Mayer Engineering Company, Los Angeles.
   Fee: $175.

2. Creative Packaging of Consumer Goods -- May 15 - 19, 1961.
   Instructor: Philip Libson, West Coast Sales Manager, AR-KAY Printing Company, Inc., Los Angeles.
   Fee: $250. (includes lodging and meals).

3. Advanced Techniques of Programming Digital Computers -- May 29 - June 10, 1961.
   Instructor: Lionello Lombardi, Department of Mathematics, University of California, Los Angeles.
   Fee: $175.

4. General Theory of Waves in Gases and Solids -- June 5 - 16, 1961.
   Instructor: Tracy Y. Thomas, Professor of Mathematics, Indiana University, Bloomington, Indiana.
   Fee: $175.

5. Electronic Display Systems -- June 19 - 23, 1961.
   Instructor: Harold Luxenberg, Manager, Display Department Intellectronic Laboratory, Ramo-Wooldridge, A Division of Thompson-Ramo-Wooldridge, Los Angeles.
   Fee: $100.

6. Information Theory Applied to Modern Physics and Engineering -- June 12 - 23, 1961.
Instructors: Myron Tribus, Professor of Engineering, University of California, Los Angeles.
E. T. Jaynes, Professor of Physics, Washington University, St. Louis, Missouri.
Fee: $175.

7. An Introduction to Transport Theory -- June 19 - 30, 1961.
Instructor: G. Milton Wing, Sandia Corporation, Albuquerque, New Mexico.
Fee: $175.

8. Advances in Space Propulsion -- July 3 - 14, 1961.
Instructor: Donald Simkin, Senior Technical Staff Member, Astropower, Inc., Long Beach, California.
Fee: $175.

9. Fluid Power Control -- July 10 - 21, 1961.
Instructor: J. Lowen Shearer, Associate Professor of Mechanical Engineering, Massachusetts Institute of Technology, Cambridge, Massachusetts.
Fee: $175.

10. Electromagnetic Radiation: Advances in the Generation, Amplification, and Detection of Radiation between the Ultraviolet and Microwave Region -- July 10 - 21, 1961.
Instructor: Max Garbuny, Westinghouse Research Laboratories, Pittsburgh, Pennsylvania.
Fee: $175.

11. Analysis and Design of Airborne Pressure Vessels -- July 10 - 21, 1961.
Instructors: Ivan Rattinger, Member Technical Staff, Aerospace Corporation, Los Angeles.
John H. Cunningham, Group Engineer in charge of Structures, Research and Development, Douglas Aircraft Company.
Fee: $175.

12. Technical Report Writing for Engineers and Scientists -- July 10 - 14, 1961.
Instructors: John B. Bennett, System Development Corporation, Santa Monica.
Robert R. Rathbone, Associate Professor of English, Massachusetts Institute of Technology, Cambridge, Massachusetts.
Fee: $100.

13. Structural Sandwich Design and Fabrication -- July 10 - 21, 1961.
Instructor: Edward R. Kuenzi, Chief, Design Criteria Section, Division of Physics and Engineering, United Forest Products, Laboratory, Madison, Wisconsin.
Fee: $175.

14. Space Power Generation -- July 17 - 28, 1961.
Instructor: George C. Szego, Member Senior Staff, Space Technology Laboratories, Inc., Los Angeles.
Fee: $200.

15. Harmonic Analysis for Engineers and Scientists -- July 17 - 28, 1961.
Instructor: Norbert Wiener, Professor of Mathematics, Massachusetts Institute of Technology, Cambridge, Massachusetts.
Fee: $175.

16. Plasma Physics -- July 24 - August 4, 1961.
Instructor: Carl Oberman, Project Matterhorn, Princeton University, Princeton, New Jersey.
Fee: $175.

17. Astrodynamics and Rocket Navigation -- July 31 - August 11, 1961.
Instructor: Robert M. L. Baker, Jr., Lecturer, Department of Astronomy, University of California, Los Angeles.
Fee: $175.

18. Nuclear Rocket Propulsion -- August 14 - 25, 1961.
Instructors: Robert W. Bussard, Member of Staff, Division Office, Nuclear Propulsion Division, Los Alamos Scientific Laboratory, Los Alamos, New Mexico.
Richard DeLauer, Director, Vehicle Development Laboratory, Space Technology Laboratories, Inc., Los Angeles.
Fee: $175.

19. Adaptive Control Theory -- August 14 - 25, 1961.
Instructors: Richard Bellman, Mathematician, The RAND Corporation, Santa Monica, California.
Robert Kalaba, Mathematician, The RAND Corporation, Santa Monica, California
Fee: $250.

20. Quantum Mechanics -- August 14 - 25, 1961.
Instructor: Edward Teller, Professor of Physics at large, University of California, Berkeley.
Fee: $175.

21. Thermal and Luminous Radiative Transfer -- August 14 - 25, 1961.
Instructor: Philip O'Brien, Associate Professor of Engineering, University of California, Los Angeles.
Fee: $250.

22. Aerospace Vehicle Guidance and Control -- August 14 - 25, 1961.
Instructor: Cornelius Leondes, Associate Professor of Engineering, University of California, Los Angeles.
Fee: $200.

23. Fusion Processes - Casting and Welding -- August 14 - 25, 1961.
Instructor: Thomas H. Hazlett, Professor of Industrial Engineering, University of California, Berkeley.
Fee: $175.

24. Strain Gage Lectures -- August 21 - 25, 1961.
Instructor: William Murray, Professor of Mechanical Engineering, Massachusetts Institute of Technology, Cambridge, Massachusetts.
Fee: $175.

25. Strain Gage Laboratory -- August 28 - September 1, 1961.
Instructor: William Murray, Professor of Mechanical Engineering, Massachusetts Institute of Technology, Cambridge, Massachusetts.
Fee: $175.

26. Industrial Photoelasticity -- September 5 - 9, 1961.
Instructor: William Murray, Professor of Mechanical Engineering, Massachusetts Institute of Technology, Cambridge, Massachusetts.
Fee: $200.

27. Thermal Management of Manned and Unmanned Spacecraft -- September 5 - 15, 1961.
Instructor: John L. Mason, Chief Engineer, AiResearch Manufacturing Company, Los Angeles.
Fee: $175.

28. Information Storage and Retrieval -- September 25 - October 6, 1961.
Instructor: Robert M. Hayes, Scientific Director, The Electrada Corporation, Culver City, California.
Fee: $175.

29. Bearing Technology -- November 6 - 17, 1961.
Instructor: Edmond E. Bisson, Assistant Chief, Fluid System Components Division, NASA - Lewis Research Center, Cleveland, Ohio.
Fee: $175.

Handy Associates, Incorporated

Management Consultants

405 Park Avenue New York 22, N.Y. PLaza 5-1911

NEW YORK
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EXECUTIVES NEWYORK

February 4, 1961
p e r s o n a l

URGENT

Dr. Norbert Wiener
Department of Mathematics
Massechusetts Institute of Technology
Cambridge 38 Massechusetts

Dear Dr. Wiener:

An identical letter is going to the other nine persons on the enclosed list of ten outstanding scientists and engineers in the most advanced horizons of defense systems concepts.

Your personal and informal comments are requested in regard to the technological reasonableness of mobilizing large scale research and development efforts to create the new technologies and techniques for an eventual world-wide WAR SAFETY CONTROL organization capable of inspecting, detecting, monitoring and enforcing safety disciplines to assure, one day, that no nation would be able to mobilize national military power to wage or threaten war on any other nation.

More and more people engaged in the most advanced defense systems efforts agree that they are now ready to undertake the mammoth additional task, now, of creating this even more complex safety technology for the strategy of prevention of war, as mentioned on page four of the enclosed report to President Kennedy's personal counsel, Mr. Theodore C. Sorensen, titled, " CONTROL OF WORLD CRISIS ".

Although technology alone can never prevent war, it is equally true that no world security shelter can be created until there is a technology capable of enforcing military safety disciplines on a world scale. Where we are now planning and working within a concept of national security organization (Department of Defense) we are now discussing the possibilities of, in addition, beginning to plan and work within a new dimension concept of world security organization(a WAR SAFETY CONTROL Department within the United Nations or future world security organization). The scientists who have created each new thrust of military power are the only ones fully qualified to cooperate on the specifications for the enforceable safety discipline necessary, one day, to make certain that that aspect of military power will NOT be used. At the moment the concept is fantastic to most people, as the concept of nuclear energy or the concept of man in space once was fantastic. We are suggesting an increasingly complex system of safety systems of instrumentation and sensing devices detecting and monitoring a great many physical and statistical factors across the world, telemetered to data processing and electronic decision-making centers as the intelligence function of a universal WAR SAFETY CONTROL organization.

This is a request for your estimate of the technological feasibility of such a system of safety systems . . not the political advisability of creating a war-proof world. I will report back to you the consensus, as I report it to Mr. Sorensen.

Howard G. Kurtz

personal: Howard G. Kurtz, % Handy Associates
405 Park Ave.,New YorkNY

INFORMAL

LIST OF TEN OUTSTANDING SCIENTISTS AND ENGINEERS IN THE MOST ADVANCED HORIZONS OF DEFENSE SYSTEMS CONCEPTS, selected by Lloyd E. Slater, Executive Director, Foundation for Instrumentation Education and Research:-

1. Dr. Donald P. Eckman, Director, Systems Research Center, Case Institute of Technology, University Circle, Cleveland, Ohio.

2. Professor John Truxal, Head, Dept of Electrical Engineering, Polytechnic Institute of Brooklyn, Brooklyn 1, N.Y.

3. Dr. Charles S. Draper, Head, Aero-Space Dept., Massechusetts Institute of Technology, Cambridge 38 Massechusetts

4. Professor Otto J. M. Smith, Dept of Electrical Engineering, University of California, Berkley, California

5. Dr. John R. Ragazzini, Dean of Engineering, New York University, University Heights, Bronx, N.Y.

6. Professor Lawrence Rauch, Head, Instrumentation Program, College of Engineering, University of Michigan, Ann Arbor, Michigan

7. Professor Rufus Oldenburger, Department of Mechanical Engineering, Purdue University, Lafayette, Indiana

8. Dr. Norbert Wiener, Dept of Mathematics, Massechusetts Institute of Technology, Cambridge 38 Massechusetts.

9. Mr. Harold Chestnut, Engineering Department, General Electric Company, Schenectady, New York.

10. Professor Harry H. Goode, Department of Electrical Engineering, University of Michigan, Ann Arbor, Michigan.

(This is not an official list by FIER)

FIER

The Foundation for Instrumentation Education and Research Inc.

Lloyd E. Slater
Executive Director
335 East 45th Street
New York 17, N. Y.
MUrray Hill 5-1940

January 22, 1961

Mr. Howard G. Kurtz
Handy Associates, Inc.
405 Park Avenue
New York 22, New York

Dear Mr. Kurtz:

You are receiving the support of some good and thoughtful people for your ideas on the elimination of war and warlike activities through a system of international surveillance and control. It now may be appropriate to test these ideas - and possibly further develop them - by means of a planned meeting of interested people.

It seems to me that what you propose can only be properly verified and perhaps carried forward, if feasible, through such a meeting. The meeting thus would not only be critical, but conceptual in nature: it would expose your plan to experts from the various fields which would be involved in its implementation. Because of this it is quite possible that new concepts and new approaches will arise to perhaps bolster any weaknesses revealed. At the same time, such a meeting could also suggest an orderly and workable way to further proceed.

I have not studied the problem too carefully, but I would imagine that people expert in the following areas might initially attend the "conceptual" meeting:

1. From the area of Systems Analysis (Operations Research is another designation), people to consider the analogy of the approach to other large-scale systems now in effect or under development (e.g. Air Flight Safety; SAGE, Military Logistics, etc.).

2. From the area of Instrumentation Design, people to consider the techniques of sensing, information handling and feedback which might be applied in an international surveillance network.

3. From the area of Geo-Politics, people to consider the geographical-social problems involved and the scale necessary in establishing the parameters of such a system.

4. From the area of Psychology and Sociology, people to consider the human limitations in the implementation of such a system.

Such a meeting, of course, could only be exploratory and preliminary in character; perhaps two days of semi-informal talks and discussions would probably suffice to begin with. But out of the discussion there certainly should be reached some conclusions on--A) the potential for your approach or some version or modification of it as a realistic program; B) some elaboration in detail on the plan proposed; C) recommendations for further action to advance the concept.

While I cannot, at this stage, formally speak for my organization as a definite sponsor or prime mover of such a meeting, I can point out that we have organized and carried out somewhat similar "conceptual" meetings in the past. We have called these Interdisciplinary Clinics in Instrumentation and they have brought together scientists from various fields (e.g. bio-medicine, meteorology, space medicine, econometrics) with specialists in Instrumentation to explore some of the new and challenging measurement and automatic control problems in each of these fields. I feel fairly certain that our Board would be most interested in helping to organize and carry out a meeting of the type proposed - provided it could initiate the idea with the support and sponsorship of some formal and recognized agency interested in the project. In the past our co-sponsors have been various Learned and Technical Societies and we have been funded by the National Science Foundation to bring outstanding people to a few of our meetings.

My informal offer here is not an idle one. It seems to me that our type of organization - a non-profit, technically-oriented Foundation - may be more appropriate as a rallying agency for such a meeting than a Trade Association or Professional Society. It seems quite important when dealing with a concept that could involve the development of hardware and ultimate markets for equipment, that the atmosphere in such a meeting contain an almost built-in guarantee that its goal is to serve humanity at large rather than any special group or interest. This objective viewpoint, we believe, we are prepared to offer.

If you can see any way to use our services in this way, please let me know and I will explore the possibility with our Board of Directors.

Cordially yours,

Lloyd E. Slater

Lloyd E. Slater
Executive Director

personal: Howard G. Kurtz, % Handy Associates
405 Park Ave, New York, N Y

THE END OF AN AMERICAN NATIONAL STRATEGY

The final checkmate: The Kremlin Grand Strategy gained dominance over the American National Strategy to the point that the United States may be in the final checkmate . . .in the defeated position that either way a move is made the game is lost . . .unless there is a break-through to a new-dimension concept of national security.

1. The national security can not be maintained indefinitely by increasing defensive military power which, if used, would destroy the American civilization along with the world civilization. The national security can not be maintained indefinitely by increasing deterrent terror which increases the anxiety not only of the enemy people, but of the in-between people, and of the American people.

2. Kremlin Grand Strategy for more than three years has been keyed to the theme of "disarmament". The U.S. appears to be walking into the Kremlin trap. To whatever degree there is reciprocal "disarmament" the Soviet military balance rises, like the end of a see-saw, while United States military balance sinks, like the other end of the see-saw. If nuclear power is banished on both sides, missle power banished on both sides, air power banished on both sides, and naval power banished on both sides . . .then Soviet land armies can walk or ride over land to three-fourths of the world . . .all they need for world conquest.

If "disarmament" can also be enforced by " arms control" the U.S. will become permanently powerless to prevent Soviet expansion and Chinese expansion to world domination . . and permanently powerless to protect the future security of the United States.

Sudden and complete disarmament, the Kremlin call, would ruin U.S. defense industries, would permanently rupture the American economic system, and would render the U.S. powerless to protect its independence.

3. The future security of the United States can not be achieved or regained by continuing to wait, paralyses by anxiety, as has been the defensive policy for so long, like a punchdrunk boxer waiting for each new blow . . . reactingtoo late to each surprise attack . . wishing the opponent would go away.

The break-through: If New York City were to be completely disarmed tomorrow, the city would become a jungle within thirty days. I am not interested in living in a " disarmed " city, but in a city with armed and disciplined police protection to enforce the minimum safety disciplines. I am not interested in living in a " disarmed " world, but in a world made safe against war by a well armed, highly technical, infinitely complex WAR SAFETY CONTROL organization equipped to enforce the physical safety of the world against war.

Science and technology have now progressed to the point where it is deemed feasible to begin the massive new research and development thrusts into this neglected new technology for the strategy of prevention of war. (See page 4, Consulting Report, " CONTROL OF WORLD CRISIS " for new dimension national strategy).

copy

AMERICAN ASSOCIATION
for the ADVANCEMENT of SCIENCE
Board of Directors
Chauncey D. Leake, Chairman

Hamilton Hall
Ohio State University
Columbus 10 Ohio

February 6, 1961

Mr. Lloyd E. Slater
Foundation for Instrumentation Education and Research Inc.
335 East 45th Street
New York 17 N. Y.

Dear Mr. Slater:

Dr. Howard G. Kurtz of Handy Associates, 405 Park Avenue, New York 22, New York, has sent me a copy of your letter of January 22 regarding the development of Systems Analysis, and instrumentation design, that may aid in the matter of handling data that can be used effectively for war safety control. I agree with you that there should be a planned meeting of interested people. This is an important matter, and there are many who are engaged in it. You probably know of the vigorous efforts of the Pugwash Conference group, as well as the efforts of the AAAS Committee on Science in the Promotion of Human Welfare.

I am sending a copy of this letter to Dr. Barry Commoner, Chairman of the AAAS Committee on Science in the Promotion of Human Welfare, together with a copy of your letter, so that he may have the idea that you suggest regarding an overall meeting of those who are concerned. His committee might be the most appropriate committee to arrange such a meeting.

On the other hand, it seems to me that your own foundation could undertake to arrange for the meeting, quite as you suggest. You are a non-profit technically orientated organization, and you do have the interest of providing the instrumentation that might be pertinent to the overallproblem. I am glad to know that you have been funded at times by the National Science Foundation.

Certainly I think it would be appropriate for you to explore the possibility of arranging a meeting with your Board of Directors. I would hope that you would keep in touch with Dr. Barry Commoner on this matter, as well as with Dr. Howard G. Kurtz and others who may be concerned. You might make contact in connection with the Pugwash Conference group through Dr. Bently Glass of the Department of Zoology of the Johns Hopkins University in Baltimore, or Dr. Harrison Brown of the California Institute of Technology in Pasadena.

You know that I will be glad to aid in any way possible in the development of any sort of an effective program that might result in a mechanism for the investigation and promotion of peace. With all thanks and best wishes, I am

Cordially yours

Chauncey D. Leake
Professor of Pharmacology

CDL:jen
cc: Drs Kurtz, Wolfe, Commoner, Glass and Brown.

Handy Associates, Incorporated

Management Consultants

405 Park Avenue New York 22, N.Y. PLaza 5-1911

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January 1, 1961

A Personal Consulting Report

Mr. Theodore C. Sorensen
Special Counsel to President-elect John F. Kennedy
Room 362 Senate Office Building
Washington 25, D.C.

Dear Mr. Sorensen:

Enclosed is the Consulting Report: "Control of World Crisis" which you invited, and which you may use freely, if desired.

The report focuses upon that moment on January 20, 1961 when the new President of the United States assumes office, and when he alone then will hold the ultimate personal responsibility for the future security of the United States, and of the American people.

If there is to be an American Grand Strategy for the victory of mankind over danger and fear of war, this new vision must first be in clear focus in one human mind ... the mind of the man who is President. This report is a small effort to offer help toward this new personal strategy.

It offers a draft of the directive the President might send to the National Security Council to clarify a new dimension concept of national security. The concept now in use has become obsolete and invalid.

It offers a draft of a Proclamation from the President to the American people, and to the world, calculated to electrify world-wide public opinion and to spark a powerful new determination in the mind of man.

The material is drawn from a book manuscript titled "The Future Security of the World" on which my wife and I have been working for more than ten years, and from excerpts from our articles in Public Relations Journal, The American Engineer, Armed Forces Management, and the Jesuit magazine America.

It is a responsibility of the President to articulate the deepest yearnings of the American people. To help indicate the character of the current American consensus in regard to world crisis, there follows a combined reaction from leading citizens who have read this report in advance. Others who encourage wider dissemination of the report are unable to identify themselves in this way because they are in positions of leadership in the advanced planning echelons of the Department of Defense.

If others have strong reactions, pro or con, I will suggest that they communicate with you direct.

Howard G. Kurtz

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Robert M. Marks & Company
32 East 57th Street
New York 22, N.Y.

To:- Mr. Theodore C. Sorensen
Counsel to President-elect John F. Kennedy
Room 362 Senate Office Building
Washington, D.C.

The American people have proven that they will support continuing massive research and development into modern defense technologies which have the capacity to exterminate civilization.

Today there appears a challenge of a new dimension.

Will the American people rise to the height of supporting, in addition, large scale research into the even newer technologies of Arms Control and War Safety Control which may develop the capacity to create a future war-proof world?

Why not challenge the world to a war on war?

Speaking as individual citizens, we believe that the American people are ready for bold forward leadership capable of guiding them to the goal of a world made safe against war ... a world in which all nations will be independent and free from fear of each other. We welcome leadership that will call upon the American people, and the people of the world, to debate pro and con the crucial new world policy questions raised in this report, "CONTROL OF WORLD CRISIS".

DR. CHAUNCEY D. LEAKE, President,
American Association for the Advancement of Science
DR. MARGARET MEAD, President,
American Anthropological Association
DR. KIRTLEY F. MATHER, President,
American Academy of Arts and Sciences
DR. QUINCY WRIGHT, Department of Political Science,
University of Virginia
DR. HUGH WOLFE, Editor of Publications,
American Institute of Physics
MR. ELMO ROPER, President, Elmo Roper Associates
MR. GEORGE BACKER, New York Real Estate Executive
MR. TOM SLICK, Sponsor,
Arden House Strategy for Peace Conferences
DR. JOHN C. BENNETT, Dean of Faculty,
Union Theological Seminary
RABBI MAURICE N. EISENDRATH, President,
Union of American Hebrew Congregations
REV. L. C. McHUGH, S.J., Associate Editor,
America, National Catholic Weekly
REV. JOHN THOMAS, Director,
Board of Social Education, American Baptist Convention
REV. CARL SOULE, Board of World Peace, Methodist Church
MR. CLARENCE PICKETT, Executive Secretary Emeritus,
American Friends Service Committee
REV. HOMER A. JACK, Director,
National Committee for a Sane Nuclear Policy
DR. EVERETT R. CLINCHY, President,
Council on World Tensions
MRS. MARION McVITTY, U.N. Liaison Officer,
United World Federalists
MR. ROBERT M. MARKS, President,
Robert M. Marks & Co., Advertising

From: Howard G. Kurtz
with Harriet B. Kurtz
405 Park Avenue
New York, New York

Consulting Report:-

CONTROL OF WORLD CRISIS

CONCLUSIONS:-

On January 20, 1961 when the new President of the United States assumes office there will be a fleeting moment of opportunity for world leadership.

Only one person, the President of the United States, can make the ultimate decision to reverse the twelve year retreat into greater and greater national INSECURITY and national danger, and to prepare for the bold forward commitment for the next generation to regain the national security in a war-proof world.

Science and technology that gave man power to exterminate human life from earth may now offer the even greater power to make future wars technically impossible, if there is a national leader with generalship sufficient to inspire world mobilization for sustained war on war.

With even larger new research and development thrusts the present most advanced weapons systems technologies can begin to creat the highly complex, intricate, costly scientific War Safety Control organization eventually capable of assuring the national security of all nations simultaneously.

In addition to continuing commitments for the national defense, the President could provide world leadership in long long range planning on a new high level above the concept of national security ... on the unexplored level of world security.

If the new President sees this opportunity clearly he could bring a sunrise of hope to an anxious world with the reality of a new grand strategy for the survival of the human race.

The American people have proven that they have the character to support continuing large scale research and development into modern defense technologies which have the capacity to annihilate civilization ... can the new President raise the American character to new heights to also support large scale research into the even newer technologies of Arms Control and War Safety Control which may develop the capacity to create a future war-proof world?

Index of Report

Control of World Crisis

end

I. Half-Strategy of Defeat

PROBLEM: The United States has had only half a national strategy.

Like a football team taught only defensive plays, the United States has had a defense-only strategy. Like a defense-only football team, the U.S. can only delay, contain, block, hold, or lose ground to an aggressive opponent. Like a defense-only football team the U.S. (and its allies) has dashed valiantly wherever the enemy chose to make his next thrust ... to left end (Berlin) ... or to right end (Korea) ... or through center (Africa) ... or left end again (Berlin) ... or even in the bleachers at the United Nations.

Like a defense-only football team, the U.S. cannot move forward ... cannot win victory ... cannot hold the initiative ... cannot control its own destiny ... and is free to progress only backwards in defeat.

Each year for twelve years the American people have become more INsecure than they were the year before, and in greater danger from a stronger enemy than they were the year before, in a steady retreat from the goal of national security. The U.S. has concentrated on national defense and neglected national security.

As victory in football depends upon both superior defensive strategy and superior forward strategy, so victory in attaining the national security requires both the superior defensive power the U.S. has, and the other half of national strategy ... the missing half of foreign policy ... the forward thrust that has been neglected and forgotten.

II. Full Strategy for Victory

SITUATION: The rupture of national defense is not peculiar to the United States. It is a universal problem. No nation can assure the future security of its citizens against modern scientific enemy attack, whether launched by design, or by accident, or as first strike, or as retaliation.

On much smaller scale civilization has faced crises like this before.

Man's history follows ragged patterns of collective search for collective security and physical safety. At first people banded together as families, for safety against danger to the family. Later, as the dimension of danger made security impossible, people banded together into larger tribes, for safety against danger to the tribe. As the dimension of danger expanded still further making tribal security impossible, people regrouped into principalities and larger groups for the safety of the larger group against group danger. As gigantic new dimensions of danger again broke through group security, people created the most complex organization ever invented by man ... the nation ... to provide physical security against dangers to the nation.

Today the fantastic progress of science and technology has again exploded the dimension of danger to the near-fatal point where no nation is capable of assuring the future safety of its citizens. There can be no national security now until there is world security.

PROBLEM: There is going to be some kind of world security organization, if the experiment of man on earth is to continue. There remains only the question, "What kind of world order will it be?"

For many years the Communists have planned, and programmed, and striven foward their goal of a world security organization, knowing that the nation no longer is the unit of security.

Although the American people would rather die than live under this Communist-conquered world security dictatorship of the world, the United States Government has never taken the time to plan or even propose detailed specifications for a world security shelter that would be more acceptable to the people of the world.

Americans have been so selfishly concerned with their own national defense that they have failed to think or plan on the level of national defense for all nations.

In addition to massive commitments to continuing national defense, the American people now have an opportunity to rise to new stature by committing themselves to pioneering large scale research and development into the neglected technologies for creating a War Safety Control organization within the United Nations, or future world security organization, capable of providing simultaneous national security for all nations, and nations-to-be.

III. Strategy in Action:

Directive No. 1 from the President of the United States
TO THE NATIONAL SECURITY COUNCIL: (Draft)

The mission of the national security shall be three-fold:-

1. In addition to mobilization of national effort for the strategy of defense, which must continue although, alone, this cannot assure national security...
2. In addition to mobilization of national effort for the strategy of deterrence, which must continue although even this cannot assure national security...
3. It is now imperative to mobilize national effort for large scale research, development, planning, programming, and eventually operating under a strategy of prevention of war on a world scale.

The objective of the strategy of prevention is to create a war-proof world eventually, by now launching massive research efforts, and encouraging other nations to launch similar independent advanced study efforts, into (1) the public need for national security in each country, (2) the emerging new military technologies of arms control and world security, and (3) the new political forms and organization changes required, eventually to enlist the active support of the people of all countries, and their governments, in creating and supporting a War Safety Control organization, within the United Nations, or future world security organization, capable of bringing about a war-proof world in which all nations will be safe and secure, as well as being independent and free from foreign domination. It is recognized that this is a challenge of incalculable difficulty and yet now within range of feasibility, if sufficiently large scale effort is made throughout the world.

Organization for world security, within the U.S. Government, shall follow the policies outlined herewith:-

...The mission of world security shall be the personal responsibility of the President.

...In addition to present organization, the President shall appoint a Deputy Chairman for World Security in the National Security Council to direct national policy toward eventual world security, without neglecting present National Security Council responsibilities of national defense.

...In addition to present organization, the Director of the U.S. Information Agency shall appoint a Deputy for World Security to direct study and planning in the field of world public opinion, and the traditions of patriotism in all countries, and the universal public needs for group security which must be served by War Safety Control to deserve full loyalty from world

...In addition to present organization, the Secretary of Defense, the Secretary of the Army, the Secretary of the Navy, the Secretary of the Air Force, and the Chairman of the Joint Chiefs of Staff, each will appoint a Deputy for World Security to direct study and planning in the technical/military/scientific fields of design and operation of War Safety Control, to make possible the eventual evolution of the National Defense Establishment of all nations into a single world defense establishment to provide simultaneous defense of all nations.

...In addition to present organization, the Secretary of State shall appoint a Deputy for World Security to direct study and planning of new political devices, controls, and organization policies to make certain that War Safety Control, itself, will not become tyrant over the minds of men, or over the governments of free and independent nations, and to conduct world-wide negotiation and liaison with all other nations toward the eventual creation of a world of independent nations protected from any future threat of war or domination among each other.

(Signature) _____
The President of the United States

IV. Resolution in the Mind of Man

SITUATION: At this explosive moment in history the people of most areas of the world fear the identical thing at the identical time ... foreign military power. American people fear Soviet military power. Soviet people fear American military power. Israeli people fear Arab military power, and Arab peoples fear Israeli military power. East Germans fear the military power behind the West Germans, and the West Germans fear the military power behind the East Germans. African peoples are driven by past or present fear of foreign Colonial military power, and the former European Colonial military powers fear expanding Soviet military power. Cubans are rabble-roused by fear of American military power. Hungarians are chained to Soviet military power. And so it goes endlessly through the entire index of history's rats' nest of inter-nation fear up to the point where the world's diplomats and commanders now look with fear toward Chinese future military threat to the world.

PROBLEM: The United States' defense-only half-strategy of threatening the annihiliation of the world has greatly magnified the fears of all these people, and has helped to render the entire world INsecure ... causing the people of all countries to retreat further from their goal of national security.

As one small example among many:- The expanding U.S. defensive military power has been threatening the life of every man, woman, and child in the Soviet Union for more than twelve years. Although properly justified as defense, and although this mammoth U.S. defense power was intended to frighten the Kremlin leaders against any further expansion, this relentless U.S. militaty threat also has increased the fear of the Soviet people each year, strengthening their blind followership of their political leaders ... increasing their willingness to sacrifice personal comfort for national defense ... intensifying their patriotic commitment to expanding Soviet military power ... magnifying their readiness to fight the threatening American people, and to die if necessary, to defend their Motherland against this foreign American military threat.

This explosive, high-voltage public anxiety in the enemy public, and in the neutral and allied and in-between publics, and in the American public ... if understood and used properly ... can be the one dynamic in the world sufficiently more powerful than nuclear energy to make it possible to clamp an enforceable safety discipline on the whole world-wide, history-long destructive tradition of war.

The anxious and patriotic people of all these countries can find national security for their own country, and protection from their foreign enemies, by supporting the massive research and development thrust toward creating a War Safety Control that will provide simultaneous safety and security of all nations, and nations-to-be. What national political leader will face his own people to oppose a call to world security such as suggested in the following rough draft of an ALL-NATION DECLARATION OF INDEPENDENCE?

V. Strategy in Action:

PROCLAMATION TO THE WORLD by the President of the United States: (Draft)

We call upon the Governments of all countries to consult with their citizens for public support of an ALL-NATION DECLARATION OF INDEPENDENCE of which the following is a first rough draft for discussion purposes:-

"When in the course of human events the potential devastation of modern scientific national military power has become so overwhelming that no nation, new or old, large or small, can any longer assure the defense or security of its citizens, there arises a commanding need for an enforceable charter of national freedom and independence, guaranteed by the unchanging self-interest of all people, everywhere, in their need for group security and their concern for group survival.

"In an age in which no nation can longer hold sovereign control over its own continued existence, we hold these truths to be self-evident, that all nations, and future nations, are created with equal inalienable rights, that among these are:-

1. Guaranteed National Sovereignty
2. Guaranteed Defense against Foreign Danger
3. Guaranteed Protection against World Tyranny

and toward this end we dedicate ourselves to the revision of the Charter of the United Nations, or the creation of a new world security organization, which will include a War Safety Control capable of guaranteeing these basic rights.

"Fully realizing that this challenge which we accept dwarfs any previous challenge undertaken by mankind, we urge all governments throughout the world to call their people to widespread and unhampered research and development and experimentation among scientists, engineers, technical universities, technical societies, industry associations, and national defense establishments toward the goal of creating War Safety Control capable of maintaining and operating a controlled monopoly of world military power, and capable of detecting, monitoring, inspecting, and preventing any nation, or group, or coalition of nations, from mobilizing or preparing any future threat of war.

"We call for War Safety Control, within its proper political control, to become the kind of organization in which patriotic citizens of all nations may serve with loyalty and devotion, to assure the defense of their own native land, by simultaneously assuring the defense of all other nations, and people.

"We call for widest possible international political discussion and research toward the invention of new political checks and balances and controls and improvements in the Charter of the United Nations, that will assure the physical security of each nation, without concern for the majority, or minority, or veto whims of other nations ... yet will assure that War Safety Control, itself, shall never become tyrant over the minds of men or over the governments of free and independent nations.

"We covet national security and national freedom and national independence for our enemies, for our neighbors, and for ourselves.

"We commit ourselves to the cause of the creation of a war-proof world of free and independent nations.

"Until War Safety Control becomes a reality, we .. each nation .. will maintain the most effective national defense force each nation deems necessary."

(Signed) _____

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_____

VI. Immediate Action:- Neglected Research Areas

Wrap-up

Today, we face defeat in a grim trilemma:

1. Continuation of the arms race, to handle the temporary necessity of deterrence, cannot solve the problem of the future security of the United States. It can only further erode the national security by vastly increasing the environment of danger and the risk of unwanted war.

2. Disarmament, either unilaterally or through some negotiated disposable agreement, guarantees nothing except making the U.S. weak against some unforeseen future threat.

3. Delay, itself, the paralysis of not knowing what to do, the inability to think under stress, the fear of new ideas, the numbness that causes us to pretend the crisis will go away, all destroy the future security of the United States because each year of delay in solving the basic problem makes its eventual solution more difficult and remote.

The way to national security is not in any of these three directions, but in a break-through to a whole new kind of goal . . . the goal of security for the world. Are we of sufficient stature to commit ourselves to the three neglected fields of research and study, to the idea of coveting safety for our enemies, and for our neighbors, as we do for ourselves? If we are not capable of this level of motivation, as a nation, do we deserve to survive?

There is need for transmutation to a new species of research centers. Where the RAND Corporation and the Institute for Defense Analysis and similar quasi-governmental long-range think-groups have been focusing on the complex equations of war, there is need for new advance research groups focusing on the infinitely complex problems

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In Brief:

I. **National Security in Perspective.** *The objective of national security is to provide an environment of primary physical safety for a civilization. If this security is lost, the future of a civilization is lost. The annihilation or extermination of mankind is not the objective of security.*

II. **An Analogy to World Security.** *Our analogy: the technical/human organization called Air Traffic Control that has brought universal safety progress to what could have been an age of air anxiety. The analogy is an approximate image that we can begin to plan toward, correcting the vision as we go.*

III. **New Areas for Research.** *We need badly an organization for National Security Research. There are three major neglected research areas which are not centrally controlled and deserve large scale encouragement:*

Public Anxiety Research. *In our scholarly analyses of world crisis, we have been spending billions studying the problems of hardware, and have been neglecting study of the controlling human anxiety reactions and motivations.*

Military Safety Technology Research. *With each new scientific breakthrough, task forces of scientists and engineers are mobilized to exploit technology (a) for offensive military power, and (b) for defensive military power. Scarcely a dime is spent in massive research and development effort on the techniques of* world security discipline *which are primarily military techniques. Because military leadership has neglected them, the future security of the United States may become by default the responsibility of a* civilian *"peace agency."*

Political Science Research. *War is partly a problem of physical hardware, and partly a political problem. The political part of a world security system will be composed of organizaiton concepts, and checks and balances of power and authority, in structures not yet conceived or called for. Research in political science is far behind.*

VII. Long Range Action:

War Safety Control

World Military Security Organization

Howard G. and Harriet B. Kurtz

DURING RECENT YEARS the United States and several other powers have invested enormous sums in the technology of annihilation. The purpose of these expenditures is to provide national security. But the same scientific effort that has given us modern weapon systems has also made genuine national security impossible. We have reached the point where, even if defense budgets were tripled, no nation can assure its people security against scientific attack.

Despite the fact that the safety of any one nation can be guaranteed only when the safety of all nations is simultaneously assured, we have neglected to invest resources in the technology of national security. While we spend billions on armaments and even on the problem of putting men in space, scarcely a dime is being spent on the technical aspects of making the earth safe against war.

Even so, science and technology now have within their power the possibility of working a modern miracle. The same large-scale research and development that produced the hydrogen bomb and the intercontinental ballistic missile stand ready to attack the more difficult problem of creating a highly complex, scientific organization of physical-safety systems that can make the world safe against future wars. All that is missing is political leadership broad enough to comprehend the national-security needs of the world and to realize that world security and national independence are not incompatible.

Perhaps a development through questions and answers will best bring out in brief compass some of the technical and political requirements of *War Safety Control.*

Q. *How would War Safety Control function?*

A. War Safety Control would be a world-wide security force of men and scientific instruments. Its first task would be to monitor thousands of daily events. A system of global communication networks would constantly feed data to electronic-computer centers where the material would be evaluated. The system would be ready to flash urgent warnings if any nation were to begin clandestine operations aimed at building up military power or threatening international peace. Cadres of inspection teams, under UN auspices, would remain on the alert to investigate situations of potential or suspected danger. Garrisons of troops would remain mobilized to prevent any threat or outbreak of war.

Q. *Is there any way to make clear the workings of such a fantastic system? Suppose, for example, that some nation were to begin secret preparations for a surprise attack with some radically new weapon made from a chemical "X" that was an ordinary raw material of industry. How would the safety system determine whether such a material was being diverted to illicit underground factories?*

A. An extended analogy may help to bring out one possible approach to the problem. Consider, for example, the "Link Tracer" that came from the laboratories of Link Aviation, Inc., and is now being installed in every bus in Chicago. It is a small plastic unit containing miniature circuits for receiving and sending radio signals. Now when the bus passes over energized cables that are laid at intervals under the street, signals energize the coils in the tracer and it transmits its coded identification number to a receiver by the road. The code signal then moves to the dispatcher's office, where a visual board shows the exact location of the bus at that moment. If there is a breakdown, to cite one possibility, the dispatcher can detect the halting of the bus and via radio send a repair truck to the exact spot.

The next market for this invention may be our railway system. We already have marshaling yards where electronic devices sort out the cars from incoming freight trains. These yards are automated except for one detail: someone has to inform the computer in what order the cars are approaching. But if each car is provided with a tracer, it can report its number and position miles away from the yard.

It would be technically feasible to go further than this in controlling tank-car movements of chemical "X" under War Safety Control. Each car could be audited by electronics to make certain that it went straight to its legitimate destination. If any

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MR. KURTZ, *a management consultant and former colonel in the U. S. Air Force, has been writing for several years on the problems of international security.* MRS. KURTZ *is currently a graduate student at Union Theological Seminary in New York. The above article is a condensation of copyrighted material that will appear in a projected book.*

car were diverted or delayed at some isolated junction, the electronic monitor could set the warning system in action and thus send an inspection team speeding to the scene of the presumed violation of security.

Q. *Isn't the development of such a complex system a mere exercise of fancy?*

A. We will not know until military establishments around the world which now busy themselves with war games also begin to busy themselves with "war safety games" that can "prove out" the strategies of war prevention. War safety doctrines will have to be hammered out against the unambiguous conclusions of thousands of continuing tests involving all the possibilities of starting war secretly by traditional or exotic means.

That is precisely why War Safety Control is such a tough intellectual challenge for the military, as well as the scientific mind. We have to put exploratory teams at the very horizons of man's knowledge. The effort will be long and expensive. At each new insight gained, our teams will have to "game out" the capability of that insight for employment in the establishment of an enforceable prophylactic discipline against war.

Q. *But suppose some new Hitler were to arise with big dreams of world conquest?*

A. When and if a War Safety Control system were to become a reality, no Hitler could frighten his own people with scare talk about surrounding enemies. There would be no enemy forces surrounding his people; neither would our new Hitler possess an army of his own. There would be no national armies anywhere. All the enforcement power of the world, dedicated to the common security, would be in the hands of War Safety Control. Yet even this military power would be primarily a non-lethal military establishment!

Q. *What is the meaning of a non-lethal military force?*

A. This could be illustrated by simple examples. If we imagine some border clash arising between two nations, the disturbance could be quelled by employment of aircraft which could blanket the area with various kinds of tranquilizing gases. These gases, which would not be dangerously toxic, would literally make the lion lie down beside the lamb. In the case of more serious clashes between opposing groups that had somehow secured old-fashioned arms, modern chemical weapons could be used which could put an entire population to sleep for 48 hours, thereby providing time for War Safety to bring the situation under its control. Although these examples may seem fantastic, the fact is that such new means of exercising police action through chemistry have already been developed in the laboratories of chemical warfare, a whole new arsenal of merciful "psychic weapons" is basically at hand. There would be no need to use live ammunition except in a last desperate repulsion of violence.

Q. *What will happen to present defense forces?*

A. When and if a War Safety Control organization proves its capacity to prevent future war, nations would gradually pass through a period of phased disarmament. This would provide for an orderly elimination of all national military forces, down to those levels of force which are needed to maintain domestic law and order.

Q. *How would the War Safety Control relate to the United Nations?*

A. It would be the task of the future to integrate the safety system into the organization of the United Nations in such wise that there would be created a tradition whereby the UN would 1) dedicate itself to securing the physical safety of all peoples against war, while 2) remaining unrelated to the political systems of the member nations.

Admittedly this would be a tremendous task—of the same order of magnitude as putting men on the moon and getting them back to earth again. Its successful achievement will demand large-scale political research and inventiveness. Effective machinery must be developed to provide the checks and balances and other political means which will guarantee us that the War Safety Control system does not itself become a tyrant over the minds of men.

Q. *But would not the safety system be in fact a world government?*

A. No. Under a War Safety Control, each nation would remain sovereign in its internal affairs. All that any nation would be asked to give up would be its "right" to commit national suicide through war and to liquidate its opponents in the process.

Here, too, an analogy may be helpful. When you are flying blind in a cloud, the danger of collision is always present. It is the inherent danger of such flying that brought into existence the technical system called Air Traffic Control. ATC is not world ownership of airlines. It is not a means of exercising jurisdiction over flight origins or destinations. Under ATC each pilot remains in control of his airplane and is responsible for its welfare. But, on matters that relate to the possibility of a collision, each pilot gives up one small area of his authority. He yields up to ATC the "right" to put his craft in flight conditions that might bring death to his own passengers and those in other airplanes.

Q. *Plans such as the War Safety Control always run into one insurmountable obstacle—the mind of the Kremlin. Would the Kremlin accept such a system?*

A. Have you ever heard of a commanding general who rejected a winning strategy because the enemy general disliked it? This is just the reason why we have consistently lost the battles in the Cold War. War Safety Control is something that can be turned into a winning strategy, if we handle it correctly.

In order to develop a winning strategy, we must first bring ourselves to realize that no nation can now provide for the security of its citizens against scientific attack; we must also realize that there is no safety in the future until some kind of world order provides safety for all nations together.

Secondly, we must understand that while the Kremlin has been working strenuously toward its own version of world order for many years, the United States has never considered or planned for a specific world order that would insure the basic security of all nations against the threat of war.

Thirdly, if we want the full support and loyalty of all peoples on both sides of the "Anxiety War," we must make a determined effort to understand the basic needs of all men.

All over the world today people are obsessed with fear of some foreign power. Nobody is exempt from terror. We shall not find relief from anxiety by more

deeply involving ourselves in threats of mutual annihilation. What we need is a powerful campaign to create some form of War Safety Control, within the United Nations if possible, that will assure the security of all men everywhere and exorcise the fears that obsess and divide.

Loyal military men of every nation who have sworn to give their lives in defense of their country could do research together on the elements of a system that would protect their own nationals as well as the citizens of other states. Scientists and engineers everywhere could surely engage in the development of a safety system that would in the end be in the best interests of the security of our common humanity. And we must have the confidence that if the people of all nations can find hope of security in a War Safety Control, the massive grass-roots pressure of their demand for it will change the attitudes of those national leaders who do not genuinely desire national security.

Q. *Is there a role for religion in this search?*

A. By supporting the development of a world security system and the growth of the UN as a stronger world organization, religion can for the first time put its force behind a security system which covets security for others, even our enemies, just as we covet it for ourselves. Without doubt, persons of every religious creed will find it more Godlike to support a system that sets a high value on human life everywhere than to approve of military policies that can only lead to the extermination of friend and enemy alike.

Q. *What action can we take now?*

A. First, the Department of Defense should create a center for studying the military and scientific devices that would enter into a War Safety Control. The Department of State should establish a similar center for investigation of the political and diplomatic machinery that are imperative in such a system. The U. S. Information Agency should undertake to study world public opinion and national motivations so that their strength may be marshaled in support of a world security organ. Even the White House could establish a center for the development of a winning foreign policy, a policy that would be aimed at regaining our own security through finding world support for a security system that would make the entire globe permanently safe against the threat of war.

Secondly, a call should be made for free, private research into all these areas by foundations, universities, professional societies, etc.

Thirdly, we should make a determined effort to expose the reckless politicians everywhere who attempt to exploit the insecurity of their people for purposes of personal or national aggrandizement; we must test and prove their insincerity by calling on the help of all the world in exploring the possibility of a War Safety Control.

Finally, each of us can endeavor to enlist the help of those who are in a position to advance the cause of basic physical security for everyone in the world. We can call War Safety Control to the attention of editors, commentators, government and military men, our religious leaders and our friends—all those who have a personal stake in sheer physical survival amid the threats of mutual annihilation. After all, security in the right to live is the most basic of all goods that are sought in civil society. Until that good is secure for all men everywhere, there can be no enrichment of the common good of mankind anywhere.

VIII. World Military Security Strategy

After each war, this dynamic environment in which war can generate becomes available again between the two most powerful concentrations of military forces which are within mutual range of each other's capacities for decisive destruction. War between these two nations becomes a live potential.

The matter of range is important. The dynamic interactions of war do not generate between military powers which are beyond the range of each other's capacity to do harm. Wars do not emerge in history between nations which could not hurt each other.

The polarity of two dominant concentrations of national military power is important. These dynamic patterns do not generate between a dominantly powerful nation and a weak neighbor. Although the defensive expansion of the larger nation may overpower the weak neighbor economically, diplomatically, or even militarily, the dynamic forces of major war generate only when the defensive expansion patterns of two powerful military nations come into overlapping conflict.

In modern times each nation's military department has a Planning Agency. This agency has the responsibility to scan the military horizon, constantly, to detect the foreign military power which is becoming the most dangerous potential threat. As this potential enemy is brought into focus, all national foreign policy becomes conditioned towards defensive expansion against this potential enemy.

The foreign policy of each of the two major powers within mutual range, thus, begins to focus upon the potential hazard of the other national military power.

Potential threat is all that is required to spark the dynamics of anxiety behavior.

The dynamic interactions of war can generate as they have in recent years between the U. S. and the U.S.S.R., without either nation's soldiers having killed any citizens in the other country, by military command. It is the increasing potential danger which sparks the national anxiety-behavior.

This whole build-up is a continuing change in the specific environment in which the citizens of a nation exist. The environment becomes increasingly charged with potential danger. Human beings react differently when placed in situations of deep apprehension.

Aroused and intense public anxiety is the vital ingredient required before any nation full of people can be manipulated into going into war. Public anxiety is the secret weapon which motivates people towards the sacrifices, sufferings and disaster of war. Unless public anxiety can be sustained at a high pitch no small clot of political leaders can push a people into war. No matter how compulsively an international communist may dream of increased personal power in foreign lands . . . no matter how compulsively a colonial baron may dream of increased personal power abroad . . . no matter how compulsively an international capitalist may dream of owning all of the oil in the world . . . these dreams are empty personal crises unless they are supported by a well armed people driven involuntarily by intensive anxiety into fighting a "defensive" war against an evil enemy.

To the people on each side of the build-up for war, the opposing people are portrayed as being "aggressive," "immoral," and "evil" . . . while identical behavior on one's own side must always be explained as being "defensive," "moral," and "good."

THE national military power of each side provides the essential environment of potential danger to the people of the opposing side. If national military power did not exist, it would be impossible to create this environment of potential danger on a reciprocal basis which is a prerequisite for war between nations.

But as long as individual nations are allowed to control individual national military forces, wars will continue to generate endlessly in roughly predictable patterns. National military power is the strategic factor. It can be controlled.

The above reciprocating environments of anxiety can be observed in relation to wars throughout modern history, at least.

Only one basic change now is noticeable . . . the new dimension of Air Power has increased the range of fear and anxiety from foreign military power to its near-global limits.

The area of the world involved in a single war used to be limited by the basic range of military power.

Other nations become involved in a war only when they come within range of potential disaster, to arouse their national fears and anxieties.

Air Power, today, has brought the U. S. and the U.S.S.R. into a new "closeness" which never has existed before in history. Today each of these two dominant military powers remaining after the last war is within immediate range of the other's capacities to drop crippling atomic and hydrogen and more terrible bombs. Intense American public apprehension is pegged to the potential threat of Soviet military power, and intense Soviet public apprehension is pegged to the potential threat of American military power.

If each nation simultaneously could be deprived of the control of national military power this whole phenomenon of war would disappear like the disappearance of an electric field when the electricity is turned off.

But as long as each nation is allowed to continue to control national military force, the back-and-forth, back-and-forth increasing regeneration of anxiety will continue to build up explosive human motivations . . . until war comes as a release from tension-and-frustration.

Beliefs in materialism or particular religions are not critical, or even important factors in the generation of war. Beliefs in peculiar national political systems are not strategic or even important factors in this build-up for the most awful war civilization will ever have seen. These are merely the themes of the speechwriters, exhorters, manipulators, politicians, circulation-builders, editorial writers and historians who try to explain their predicaments in terms of superstitions and fantasies of imagination.

The critical factor in the phenomenon of war is tangible, real, concrete and observable.

It is *national military power*. It has been conceived by scientists, designed by engineers and mobilized by people on both sides who are afraid. Once the deadly dynamics of war have built up between two nations, it then would be suicidal if one nation suddenly disarmed or decreased its military power. It would be overrun by force of the pent up fears and anxieties of the opposing people.

Today's critical situation might be visualized by watch-

ing two armed men on the opposite sides of any war. Each has raised his loaded gun to firing position, cocked it, aimed it at the other's heart and placed his finger on the trigger. Each man is of a different faith . . . each has a different patriotic loyalty . . . each is deeply convinced that the other is about to kill him and is now willing to die in self-defense. Although starting from different conscious loyalties and ideals and identifications the universal controls of anxiety have taken command of the behavior of both men to the point where they are doing exactly the same things, in exactly the same way, with exactly the same motivations. Fear and anxiety are common ground which tend to make people of all races, colors, creeds and nationalities react with identical actions regarding the thing which has aroused the anxiety.

THE crucial question of this age is whether it is possible to enter this tense picture and take away the guns from these two men.

If this is possible, we will have taken action in the physical world, by removing the guns.

We will have changed the psychological atmosphere by removing the explosive charge of anxiety which had been built up between the two men.

We will not have intruded into the realm of spiritual or philosophic contentions, nor into the realm of national loyalty and patriotism.

Each man can continue to be unequivocally patriotic and loyal to his country. It is not necessary to kill foreigners to be patriotic, if one's own nation is not threatened.

Each man can continue to worship as he choses. It is not necessary to kill in order to believe.

By removing the guns, we will not have trespassed into the realm of each person's patriotisms and beliefs.

When national military power is recognized as the strategic factor in the phenomenon of war, it becomes possible to evaluate actions and policies aimed at averting war.

The League of Nations failed to prevent the build-up for war because it failed to control the strategic factor of national military power. The United Nations has failed to prevent the build-up towards an even more dreadful war because it failed to control the strategic factor of national military power.

All efforts will fail to prevent the build-up for war until a world-wide safety organization is brought into being which has a monopoly control of military power and can prevent any nation or group of nations from waging war, or threatening to wage war, against any other people.

During the period of growth, before all nations in the world belonged to this safety organization, it will have two primary missions (1) to prevent war between any member nations or areas and (2) to defend all member areas from any threat from outside powers.

Checks and balances of multi-national political control will have to be worked out to guarantee that this world-wide safety organization will not, itself, become an instrument of tyranny or oppression.

The impact of science on society today is to raise the question whether or not it is possible to create from the U.N. such a world-wide safety organization which can prevent war. It is a practical question of large scale organization.

The question of this age is whether large scale multi-national collective strength can be created in a world-wide safety organization committed to the mission of preventing war. This will mean the elimination of individual national freedom to threaten war unilaterally.

Safety is a universal objective.—***End.***

• *In 1947 when The Honorable George F. Kennan published the paper in Foreign Affairs crystallizing the "containment" concept of U. S. Foreign Policy, still the core of all U. S. policy,* HOWARD G. KURTZ *was engaged in two years of graduate study into Russian-American problems, at The Russian Institute at Columbia University, while spearheading advance planning for American Overseas Airlines' proposed operations between New York and Moscow, on the routes certificated by the U. S. Civil Aeronautics Board. That year he also spent nine weeks in Moscow during the Conference of Foreign Ministers.*

While analyzing the preconditions of international relations that would have to exist between the U. S. and the U.S.S.R. before exchange of international air transport operations could become maximum, Mr. Kurtz realized that "containment" was only a transient and defensive policy—a sort

of holding operation until some effective positive solution could be found. He has continued his search for basic principles of a world solution to crisis for twelve additional years. This article is a condensation of a book manuscript recently completed. Other sections of the manuscript have been published widely and internationally, principally within aviation circles, in the last five years.

Today Mr. Kurtz is Senior Associate, Handy Associates, Inc., management consultants. •

MRS. KURTZ *is currently a graduate student at Union Theological Seminary in New York.*

IX. World Public Opinion Strategy

Public reaction becomes predictable

When unconscious anxiety generates in this closed system, a dynamic emerges from somewhere in visceral, physiological human nature to control judgments, attitudes, and predictable behavior on a *universal scale*. Of all the stewardesses and pilots on the more than 75 international airlines flying the flags of more than 35 nations, carrying millions of passengers of all the world's categories, they have never had to ask you what church you go to—or what nationality your passport—or what your political beliefs, before KNOWING your attitudes, judgments and behavior in crisis, in flight. Public reaction becomes predictable. We are dealing with a dynamic which public relations can use without trespassing on national loyalties, or conscious beliefs.

Physical safety of the group emerges as an area of common public motivation upon which all can agree. Any person imperiling the lives of passengers in flight, or careless or negligent or indifferent to the safety of the public in flight is committing an immoral act, and is to be restrained by whatever force is necessary. The captain of your transport airplane has a responsibility to kill a passenger, in flight, if this passenger is endangering the lives of the entire group, and can be restrained in no other way. This is a portion of basic moral law.

The public needs enforceable safety discipline against dangers beyond its control. Events which bring excessive public anxiety are "bad," and disciplines which reduce public anxiety tend to be labeled "good."

Now let's look at three major groups of people in world crisis to see how public reaction may become predictable. Let's see if we can begin to visualize what we will have to do to win the struggle for the "Mind of Man" by using public relations principles.

1. Public opinion in the Soviet Union

A dictator must keep his public in a constant state of anxiety. As long as the Soviet people can be kept in such a state, afraid of the United States, the people can be molded, manipulated and mobilized for defensive war against the United States.

Kremlin propaganda told the Soviet people that the capitalist American people would be exceedingly hostile enemies. United States foreign policy then rose to make prophets out of Marx, Lenin and Stalin by doing many of the hostile things the Kremlin had predicted we would do.

No geniuses have been required in the Kremlin to keep Soviet public anxiety hot. They are not the diabolic public relations geniuses we claim them to be. We have done much of their work for them. The U.S. has provided many *facts* the Kremlin agitators needed. We built a ring of air bases around the Soviet Union, bringing every Soviet citizen within range of American-made death. We have held a nuclear bomb over the head of every Russian man, woman, and child, threatening their extermination by our Strategic Air Command, as a matter of U.S. policy. We are completing another ring of nuclear-headed missile bases around these people with the capacity to erase Soviet civilization.

I am not saying that we did not fully justify each move. I am merely pointing to the public relations fact that no propaganda expert was required in the Kremlin to keep the Soviet people in a cage of burning anxiety, and afraid of the U.S. If even the most basic principles of public relations had been brought to bear before U.S. policy was formed, we would have known that our every act would have further trapped the Soviet public in a helpless closed system of anxiety, and we would know that we were making them more and more anxious and threatened by the U.S. and therefore more compelled to fight the U.S., if it seemed necessary.

What a body blow it could be to any sector of the Kremlin wanting world conquest if we would revise our policy and base it on elementary understanding of public relations! Suppose that the President of the United States would proclaim to the world the American dedication to the almost impossible task of progressing one rational step further in world security, by transmuting the present United Nations into a world safety organization powerful enough to assure safety and security against war for all people of all areas, yet limited in jurisdiction that it will assure each area complete sovereignty and government over its own domestic political economy. In this new world safety shelter each area can have its own completely peculiar political economy, yet no nation or group of nations would be capable of threatening war against other people.

We need not yet spell out a specific design. We need not yet decide on tactics to build from within the present UN or to build upwards from regional defense concepts. Right at this moment we need to clarify the bright new-dimension *goal* of a warproof world, calling upon the minds of men from the whole world to create the design details, when the *goal* is made clear. We need to touch the hidden nerve of world motivation, and world inspiration, and world hope for a world in which war is impossible.

This new policy would not threaten the Soviet people—it would hold out to them the goal of a world security organization that would protect them from any future enemy, or any future threat to the motherland from any other country. To any large group of people caught helplessly in a closed system of danger, suffering from over-

whelming anxiety, there is one overwhelming, non-political, non-philosophic goal—physical safety. This is the goal we would be offering the Soviet people, devoid of any political or economic threat to them; and expecting only this same reassurance in return from them in a system of enforceable inspection and safety discipline.

Instead of threatening to kill them all, as they have been told, we would be committing ourselves to defend the Soviet people against any future threat of war from any foreign enemy! How could the Kremlin keep these people hostile to the U.S. if this became our genuine objective? How could the Kremlin prevent these people from spreading the word of the promise of safety and security? How could the Soviet people continue to fear the American people who were bringing them relief from anxiety?

In a new-dimension world security organization there would still be just as many disagreements on politics, on economics, on religion, on philosophy. The difference will be that there will be enforceable safety discipline that will prevent nations from threatening or waging war. Soviet and American political scientists and diplomats can work together toward this difficult goal of mutual safety, without altering their present beliefs or disbeliefs.

The public needs enforceable safety discipline for dangers beyond its control. Let's look at basic public relations principles at work in another major part of the world in crisis.

2. Public opinion in the "in-between" countries

The people of Scandinavia, England, the rest of Western Europe, Middle East, Far East and Africa are helplessly caught in a closed system of danger, in present world crisis. These people may all be dead, no matter which giant nation might actually start nuclear war, and which one waits a righteous 15 minutes for massive nuclear retaliation. No matter who starts the war, or whether it sparks by accident against the will of either side, it can be man-made Doomsday. These "in-between" people are trapped. They can not escape. They can not stop the crisis. They despair and yearn hopelessly that world leadership may arise to lead the way *out of* crisis, rather than deeper and deeper into crisis as Soviet and American policies of massive nuclear retaliation now lead.

What a majestic break-through it would be if the United States grows in stature and courage to dedicate its power and ingenuity and know-how to the breathless task of calling the rest of the world into cooperation in the formation of a world security organization to bring security and defense to all areas of the world! Instead of discovering and engineering the devices which could blow all mankind to bits, we would be committed to the gigantic struggle for the safety of mankind. Safety is a common yearning among all these people. Safety would be the goal we would be committed to bringing them. Political scientists and thought leaders of all these countries could cooperate with their counterparts in the U.S. and in the U.S.S.R. in the mammoth search to create the design details of such a safety device . . . each remaining 100 per cent patriotic to his native land . . . each maintaining 100 per cent integrity with his own religious or philosophic beliefs . . . each focusing only on the non-political goal of physical safety.

The public needs enforceable safety discipline for dangers beyond its control. Victory over war might then be in sight.

3. Public opinion in the United States

This new foreign policy goal of finding the ways to transmute the present United Nations into a world safety shelter protecting each area against any future threat of war, and assuring to each area its complete sovereignty and government over its own domestic affairs, would not weaken U.S. security. Just the opposite.

This new foreign policy goal can release a new tidal wave of moral support for the American government from all the noblest traditions of *both* political parties.

People of all religious backgrounds would be dedicated to the principle of doing unto others as we would have others do unto us, striving for the safety of others as we would have others strive for our safety, in black and white contrast to today's unreligious commitment to bring on a final man-made Day of Judgment as a decision by the President to drop "the bomb" in massive nuclear retaliation.

Honorable safety and security, not conquest, is the motivation of the American *people*—as it is of the Soviet *people*—and the *people* of all other areas. The public of the world needs enforceable safety discipline for dangers beyond its control. This can be the root of an overpowering public opinion and public pressure.

INDIAN STATISTICAL INSTITUTE

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203, BARRACKPORE TRUNK ROAD
CALCUTTA-35

No. Bio/H/4146.

Dear Norbert,

6 February 1961

On p.35 of "I am a mathematician" you refer to "the walk of a man who is so drunk that there is no relation at all between the direction of his previous step and his present step". I think the enclosed solves this problem if the step lengths are also uncorrelated. It is of course thoroughly pedestrian, where your methods are winged.

I am interesting myself in the regulation of populations once more. If x_n is a density in year n, certain hypotheses give

$$x_{n+1} = x_n^{a(1-x_n)}$$

where a is real and positive. The fixed points are 0, $-\infty$, and $1 + 2a^{-1} m\pi i$. Unity is an attractive point (stable equilibrium) if $0 < a < 2$. When $2 < a < 2.57$ (I think) cycles of period 2 are stable, and so on, i.e. there are values X for which $x_{n+2} = x_n = X$, and if $|x_n - X| < \epsilon$, then $|x_{n+2} - X| < |x_n - X|$.

For any real cycle the mean is unity, and if (as I conjecture) there are positive values of a for which no real cycle is stable, averages of x_n converge to unity in a definable sense.

I have no idea whether all this is well known.

Volterra of course got similar results 40 years ago, but not for recurrence relations.

My colleagues here are making major biological discoveries — and coveries, notably about agriculture and evolution.

Remember me to your wife. Mine has now, for the first time, watched a wasp house-building for 15 days, timing every visit.

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

Yours sincerely,

J B S Haldane
(J.B.S.Haldane)

[2/15/61]

WESLEYAN UNIVERSITY
MIDDLETOWN, CONNECTICUT

CENTER FOR ADVANCED STUDIES

February 6, 1961

Prof. Norbert Wiener
Dept. of Mathematics
Mass. Institute of Technology
Cambridge, Mass.

Dear Professor Wiener:

We invite your participation in a Conference on Induction to be held at the Center for Advanced Studies, Wesleyan University, June 12-17, 1961. The Center, and the aims and program of the Conference are described in the enclosures.

The number of participants will be held below thirty, to permit intensive discussion. It is planned to circulate copies of the invited papers to all participants before the Conference.

Thus far, it is definite that papers will be presented by Prof. Ernest Nagel who will introduce the meeting; Prof. Wesley Salmon on inductive logic; Dr. W. Ross Ashby and Prof. Herbert Robbins on adaptation and learning; Professors Sidney Morgenbesser and Adolph Grunbaum on inductive inference in the sciences; Dr. Harlan Mills on executive decision-making; and Prof. R. B. Braithwaite on values in statistical inference. Rudolph Carnap has expressed a desire to attend. There will be further program announcements as plans are completed.

Wesleyan will provide living expenses for all participants. It is hoped that our budget will also permit travel subsidy, especially for more distant participants, but this is not yet definite.

We prefer, of course, to have little or no part-time attendance, since this will reduce the possibility of cumulative discussion. You can understand, also, that we would appreciate an early reply since we are reserving a place at the Conference until we hear from you. We will be very pleased if you can be with us.

Sincerely,

Sigmund Neumann

Sigmund Neumann,
Director

SN:kb
encls.

[ans 2/10/61]

CENTER FOR ADVANCED STUDIES

Wesleyan University

PROGRAM

of

the

CONFERENCE ON INDUCTION

June 12 - 17, 1961

I. Introduction

II. Inductive Logic

III. Learning and Adaptation

IV. Inference and Prediction in the Sciences

V. Mathematical Models and Executive Decisions

VI. The Role of Values in Scientific Inference

CENTER FOR ADVANCED STUDIES

Wesleyan University

CONFERENCE ON INDUCTION

June 12 - 17, 1961

BACKGROUND

For many years the classical philosophical problems of induction have been given up by many people as meaningless, insoluble, or irrelevant. Many of those who have argued that the classical problem was no problem at all, but only an empty noise devoid of meaning, have gone on to consider other problems, whose insubstantial shadows they have taken the philosophical problems to be. These questions -- questions such as, "How should one act with limited knowledge in the face of uncertainty?" , "How is it possible for an animal - or man - to learn from experience, and how is information stored and generalized?", "What is the logical relation (if any) between the premises and conclusion of an argument which is not deductive in form?", "How are hypotheses thought up?", "How should tests of statistical hypotheses be designed and carried out?" -- turned out not only to be interesting in themselves, but, *mirabile dictu*, in many respects doluble. In place of the old problems of induction we have a host of new problems, and a host of partial answers.

PROBLEM

These problems are fragments of the problems that were once lumped under the heading of induction; their solutions, so far as they exist, are answers to some of the philosophical questions surrounding induction. But the problems and solutions are only fragments; we still have no clear, coherent, unified concept of induction, no systematic treatment of scientific inference. Despite the common origins of the disciplines that are solving problems and moving ahead, the separate disciplines use separate vocabularies and separate conceptual frameworks. Furthermore, each stems, historically, from a repudiation of the significance of the problem of induction, and it is always difficult to withdraw an absolute rejection, particularly when its grounds are obscured by the haze of dated polemic.

SOLUTION

A conference will not produce a clear, coherent, and unified concept of induction. But a first step in achieving an understanding of scientific inference is for workers in each of these several disciplines that are historically related to the problems of induction to learn to speak each other's language and - more important

yet - to learn to think in each other's conceptual frameworks. If this can be accomplished, or even if a process leading to this desideratum can be started, the conference will have produced something of great and lasting value. But more than this can be expected. By opening the channels of communication - particularly between workers in the strict mathematical disciplines, and workers in the broader philosophical fields - we can expect interaction and cross-fertilization where there once was isolation and inbreeding. Furthermore, many of the problems that men in some of these disciplines are called upon to solve - problems concerning public policy, for example - can only be solved in a framework broader than any now available. It is the prime function of the conference to attack the problem of communication; its long-range function is the unification of a number of distinct bur related disciplines.

San Diego State College
San Diego 15, California

February 7, 1961

AIRMAIL

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

Dear Dr. Wiener:

I am taking the liberty of writing to you in connection with the San Diego State College Institute on World Affairs, for the purpose of extending a cordial invitation for you to address a plenary session of the forthcoming conference. The Institute will be meeting for its 19th Annual Session next August 7 through 25, although your presence would not be necessary for more than one session.

The theme this year will be "Coexistence," an analysis from the national and international points of view of the factors leading to the continued accommodation of varied cultures, economic systems and ideologies throughout the world. Within the general framework, you would be free to select your own specific topic.

A word about the Institute. The purpose of this annual conference is to bring to the faculty and students of San Diego State College, and to the general public, the authoritative opinions of distinguished diplomats, scholars, scientists and government officials on current topics of world affairs. The Institute is recognized as one of the leading of its kind in the country. Its proceedings are broadcast in their entirety over the radio in Los Angeles and San Diego, as well as over the facilities of a nationwide educational network.

I am keenly interested in exploring the role of cybernetics in international affairs. I have been quite fascinated by the brilliant expose in your analysis of "The Human Use of Human Beings," and thought that perhaps you might wish to present your ideas to our conference.

I would like to mention that since we operate on a very limited budget, we cannot, regrettably, offer you compensation commensurate to the effort you would make in coming to San Diego. However, we will be glad to provide you with hospitality during your stay.

I shall be looking forward to hearing from you.

Sincerely,

Minos D. Generales

Minos D. Generales, Director
Institute on World Affairs

MDG:wt

[ans 2/9/61]

Cable Address "BONAQUI"

THE GROLIER SOCIETY INC. Publishers

Grolier Building 575 Lexington Avenue, New York 22, N. Y. PLaza 1-3600

February 7, 1961

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

Dear Professor Wiener:

About a year ago we wrote asking if you would do an article on Cybernetics for the revised GROLIER ENCYCLOPEDIA and you declined.

Now I would like to ask you again. If you are again too busy, then I would like to know if you could recommend an authority we might ask to write the article.

I have approached Professor Shannon and he has not answered.

The article is to be about 500 words written for an audience on the college freshman level -- somewhere between the World Book and the Encyclopedia Americana, both of which Grolier's publishes.

With many thanks for your consideration,

Cordially,

Carol B. Higgins

(Mrs.) Carol B. Higgins
Technology Editor
Grolier Encyclopedia

CBH:gk

[ans 2/15/61]

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

February 8, 1961

Dear Norbert:

It was a great pleasure to breakfast with you both. I congratulate you on your fine accomplishments as a representative of American Science, and a protagonist of international good will. I envy you your great adventures, but of course you deserve them all.

As to your Russian article on science and society, don't "waste" it on the Saturday Review. Send it to Science, or better still to Perspectives in Biology and Medicine, at the following address:

Dr. D.J. Ingle, Editor
Department of Physiology
The University of Chicago
951 East Fifty-eighth Street
Chicago 37, Illinois

Sincerely yours,

Iago

Iago Galdston, M.D.

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

/11

[ans 2/15/61]

ZOOLOGISCHES INSTITUT
DER
ALBERT-LUDWIGS-UNIVERSITÄT
FREIBURG IM BREISGAU
KATHARINENSTR. 20 / FERNSPRECHER 4328
Prof. Dr. B. Hassenstein

FREIBURG I. BR., 2.8.61

Herrn
Prof. Dr. Norbert Wiener
The Massachusetts Institute of Technology
Cambridge Mass. U.S.A.

Lieber Herr Wiener!

Mit der Übersendung der zweiten Auflage Ihres Buches Cybernetics haben Sie mir eine grosse Freude gemacht, und ich möchte Ihnen dafür herzlich danken. Gleichzeitig übersende ich Ihnen einen Aufsatz, in dem ich versucht habe, den heutigen Stand der Anwendung der Kybernetik auf biologische Probleme und die historische Entwicklung dieser Gedankenrichtung so objektiv wie möglich darzustellen. Gleichzeitig sende ich Ihnen den Sonderdruck des Vortrags, den ich in Hannover gehalten habe und bei dem ich mich über Ihre anerkennenden Worte sehr gefreut habe.

Inzwischen hat sich meine Stellung in Deutschland sehr verändert. Die Forschungsgruppe Kybernetik, die Herr Reichardt und ich 1958 begründet hatten, ist zu einer selbständigen Abteilung des Max-Planck-Instituts für Biologie in Tübingen erhoben worden. Herr Reichardt ist der Leiter dieser Abteilung.

Ich habe einen Ruf auf den Lehrstuhl der Zoologie an der Universität Freiburg i.Breisgau erhalten und angenommen. Hier habe ich die beste Gelegenheit, die Gedanken der Kybernetik im Rahmen der gesamten Biologie an die Studenten weiterzugeben. Da ich hier die gesamte Zoologie zu vertreten habe, komme ich zwar nicht mehr so viel zur experimentellen Arbeit, doch arbeite ich weiter intensiv mit Herrn Reichardt zusammen, und habe die Gelegenheit, mehr Schüler als in Tübingen heranzuziehen, sodass die gesamte Kapazität unserer Arbeit durch die

Änderung nicht gemindert ist.

Nun grüsse ich Sie und Ihre Mitarbeiter und ebenso Ihre liebe Frau Gemahlin sehr herzlich und wünsche Ihnen viel Erfolg und Glück in Ihrer Arbeit.

Ihr sehr ergebener

Bernhard Hanstein

BRANDEIS UNIVERSITY
WALTHAM 54, MASSACHUSETTS

OFFICE OF THE PRESIDENT

February 8, 1961

Dear Dr. Wiener:

I am now making up the spring calendar for our unique program in which distinguished persons whose careers have been symbols of productive living talk to our students.

Twice before you have given our youngsters an extremely stimulating experience. I think that it would be most unfair to a new generation of students to permit them to leave the University without the privilege of hearing you discuss some of the important turning points or decisions or contributions to contemporary society that have made you such an outstanding figure in our era. So, for the first time in the history of General Education S, I am asking a speaker to return to our campus for a third visit.

This is a cordial invitation to you to come to the University on Thursday, March 2, or Thursday, March 16. If you can possibly remain overnight to spend a few additional hours with small, informal student groups, your impact would be even more effective. But, in any case, I hope that you can find time in your busy schedule to give us one of these evenings.

date

We have been given a fund to subsidize this particular extracurricular program. Hence, an honorarium of $300. can be made available. Obviously, this is not compensation, but we hope that the service that can be rendered to a rather exciting student body will intrigue you sufficiently to give us the opportunity to welcome you again.

With every good wish,

Cordially,

A. L. Sachar

Dr. Norbert Wiener
Massachusetts Institute of Technology
Cambridge, Massachusetts

ALS:r

What do you say to this? Will it fit in?

[ans 2/20/61]

February 9, 1961

Mr. Minos D. Generales
Director
Institute on World Affairs
San Diego State College
San Diego 15, Calif.

Dear Mr. Generales:

Many thanks for your invitation to address a plenary session of your August conference.

Unfortunately, my schedule for this summer and fall is heavier than I would like it to be, and I must, therefore, regretfully decline.

Sincerely yours,

Norbert Wiener

NW/emr

Your ref: NBI-EP
SF-9201

February 9, 1961

Miss Elizabeth C. Hartmann
Head, Training Section
Extramural Programs
National Institute of Neurological
Diseases and Blindness
Department of Health, Education, and Welfare
Bethesda, Md.

Dear Miss Hartmann:

I am glad to back Dr. John Barlow's application for a Senior Fellowship Grant in the field of neurophysiology.

Besides being a splendid physiologist and neurophysiologist, Dr. Barlow has a thorough understanding both of the electronics of the apparatus he is called upon to use and the mathematics needed for its proper use.

We have been working together for some five years, and I have considered his industry and his judgment of great value to me. He is modest, likeable young man of the sort that I wish we had many more of.

The Massachusetts General Hospital is the birthplace of modern electroencephalography, and I think it is highly appropriate that Dr. Barlow's work which is bound to lead to great developments in this field should be done at that institution.

Sincerely yours,

Norbert Wiener
Institute Professor
of Mathematics

NW/emr

February 9, 1961

Mr. Harry B. Henshel
President
Bulova Watch Company, Inc.
Bulova Park
Flushing 70, N.Y.

Dear Mr. Henshel:

I am very much interested to hear of improvements in time-keeping, and I think that the mathematical theory of the watch and other timepieces should be presented to students in a much better form than we find at present.

It should prove interesting to talk the matter over some time.

Sincerely yours,

Norbert Wiener

NW/emr

February 9, 1961

Mr. Robert F. Kiely
St. Mary's Seminary
600 North Paca Street
Baltimore 1, Md.

Dear Mr. Kiely:

I am interested in the fact that you are writing a dissertation on cybernetics, and, of course, I shall be glad to look it over and criticize it, without, however, committing myself as to any very brief period within which I am to give you my criticisms. In other words, if you keep a copy of anything you have done so that I will not be responsible for the only existing copy, and if you are willing to take pot luck with what I do with it, I shall be glad to be of whatever use I can.

Sincerely yours,

Norbert Wiener

NW/emr

SLOAN-KETTERING INSTITUTE FOR CANCER RESEARCH
RESEARCH UNIT OF MEMORIAL CENTER FOR CANCER AND ALLIED DISEASES
WALKER LABORATORY
145 BOSTON POST ROAD
RYE, NEW YORK

OWENS 8-1100

CABLE ADDRESS: SKICANCER NEWYORK

Offer has been charged for Prof. Wiener to be discussion leader on the Wednesday morning session (5 April) — in Mathematics theory, electronic brains, computers.

February 10, 1961

Professor N. Wiener
Massachusettes Institute of Technology
Department of Mathematics
Cambridge, Massachusettes

Dear Professor Wiener:

The 1961 Symposium in Applied Mathematics will be held in New York City on April 5 through 7 and will be on "Mathematical Problems in the Biological Sciences". One of the sessions will be devoted to talks on the nervous system and computers. Doctors' Landahl, Minsky and Moore will present papers at this session.

On behalf of the Invitations and Steering Committee for the Symposium I would like to invite you to act as Chairman of this session. May I add that your acceptance of this chairmanship will add immeasurably to the value of this session.

The American Mathematical Society will cover travel expenses and will be able to pay a nominal fee of $100 to each chairman of the sessions.

Very truly yours

John A. Jacquez

John A. Jacquez, M. D.

JAJ:zb

6

5 & 6

CLASS OF SERVICE

This is a fast message unless its deferred character is indicated by the proper symbol.

WESTERN UNION
TELEGRAM

W. P. MARSHALL, PRESIDENT

SF-1201

SYMBOLS

DL = Day Letter

NL = Night Letter

LT = International Letter Telegram

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DR W A ROSENBLITH

MASSACHUSETTS INSTITUTE OF TECHNOLOGY ROOM 20B-221 CAMBRIDGE

39 MASS

THE INTERNATIONAL BRAIN RESEARCH ORGANIZATION OF UNESCO TAKE PLEASURE IN SENDING SALUTATIONS TO PROFESSOR WEINER ON THIS OCCASION WITH NOTIFICATIONS OF HIS ELECTION TO HONORARY MEMBERSHIP BY UNANIMOUS VOTE OF THE CENTRAL COMMITTEE IN RECOGNITION HIS OUTSTANDING ORIGINAL SCIENTIFIC CONTRIBUTION TO SERIES OF BRAIN FUNCTION AND REPRESENTING OUR FAITH IN THE FUTURE IMPORTANCE OF MATHEMATICAL AND PHYSICAL SCIENCES IN THE PROGRESS OF BASIC SCIENCE OF THE BRAIN AS A MAJOR AREA OF INTERNATIONAL COOPERATIVE SCIENTIFIC ENDEAVOUR

HERBERT M H JASPER EXECUTIVE SECRETARY

[ans 2/27/61]

INTERNATIONAL
DESIGN
CONFERENCE
IN ASPEN

179 North Michigan Avenue
Chicago 1, Illinois
ANdover 3-1270

February 10, 1961

Dr. Norbert Wiener
Massachusetts Institute of Technology
Cambridge, Massachusetts

Dear Doctor Wiener:

Thank you for your kind note of February 4th. I am very sorry to learn that you are unable to accept my invitation to speak at our conference this coming June. I am especially sorry because the subject matter and the importance of its relationship to our times could have had no better presentation than that which you are qualified to give.

Although you are unable to accept this invitation, I do hope that you may find it possible to address one of our future conferences and I hope that I shall have the pleasure of meeting you sometime.

Again, my sincere regrets that you are unable to come.

Sincerely,

herbert pinzke

Herbert Pinzke,
1961 IDC Program Chairman

HP/f

for purposes of affidavit for Barbara Garrelts

February 10, 1961

To Whom It May Concern:

Mrs. Eva-Maria E. Ritter has been my secretary (three days a week) since November 23, 1959. Her salary is $189.00 per month.

Norbert Wiener
Institute Professor
of Mathematics

Letter of recommendation to the Graduate School.

Mr. Marcus has been employed by the Rand Corporation at Santa Monica. Two years ago, he was assigned to me as an assistant at UCLA in courses which I gave to Engineers on random functions and nonlinear problems.

He was most energetic, understanding and valuable to me and I shall be glad to have him as my assistant again this summer. I consider him an alert and intelligent man with a career awaiting him in the field which lies between pure and applied mathematics. Personally, he has been most cooperative and pleasant to deal with.

Institute Professor of Mathematics

Norbert Wiener

Mass. Institute of Technology

Cambridge 39, Mass.

February 10, 1961

February 10, 1961

Mr. David Binder
2009 S. Bryant
Minneapolis 5, Minn.

Dear Mr. Binder:

I read your letter with interest, but I must confess that I am rather appalled by the problem of answering it. Perhaps the best thing for me is to pick out of my files a number of reprints on matters closely bordering on the question that you bring up to me and to put you on my list for two or three reprints on similar subjects which ought to come out within the year.

In particular, I have an article on Science and Society which has not come back to me yet. It was solicited from me by the journal Voprosy Filosofii, and it involves an implicit criticism of over-rigidity in connection with the status of science.

Sincerely yours,

Norbert Wiener

NW/emr

February 10, 1961

Mr. Sidney Margolius
74 Davis Road
Port Washington, N.Y.

Dear Mr. Margolius:

The question you asked me in your letter of January 18 about automatization concerns an aspect on which I have very little direct information and on which my opinion would largely be a matter of guess. I have never tried to keep up with the statistics of automatization confining my effort to the theory and to the moral and technical problems caused by it. Therefore, all I can say to you is that automatization is developing at an accelerating pace, that the techniques of self-programming learning machines are coming to be well understood, and that it is in this field of good programming, rather than in the hardware which is already very adequate, the progressof the future is to be looked for.

From this point of view I think that the possibilities as well as the perils of automatization are scarcely realized as yet, outside of a very narrow circle of people actually engaged in the work. Frankly, I would be at a loss to write an article for a public not already alerted to the earlier stages of the automatization problem for fear that I should be either platitudinous or oversensational or, what is most probable, both at the same time.

Sincerely yours,

Norbert Wiener

NW/emr

February 10, 1961

Professor W. Ted Martin
2-251
M.I.T.

Dear Ted:

Mr. Wang Shu Tang's letter has come to my attention, and I pass it on to you for your judgment. He is obviously a good man, and I think the letter demands some kind of action.

Mr. Marcus has been my assistant at my lectures at UCLA in 1959 and is to be again this summer. I think very highly of him, and it would be a privilege to me if he had a chance to do work with me. Can we do anything?

Sincerely yours,

Norbert Wiener

NW/emr

February 10, 1961

Prof. Sigmund Neumann
Director
Center for Advanced Studies
Wesleyan University
Middletown, Conn.

Dear Prof. Neumann:

Thank you very much for your invitation to participate in a conference on induction which will be held at your university in June of this year.

Although your outline seems very interesting and your speakers promising, I am, unfortunately, unable to accept due to commitments elsewhere.

Sincerely yours,

Norbert Wiener

NW/emr

February 10, 1961

Mr. George F. Weinwurm
10,250 Wilshire Blvd.
Los Angeles 24, Cal.

Dear Mr. Weinwurm:

The short talk I gave at the meeting in Moscow was inpromptu and I couldn't even relate now what the theme was. Let me suggest that you write to Academician B.N. Naumov, Moscow I-53, Kalachevskaya ul.15a, Institute of Automation and Telemechanics of the USSR Academy of Sciences, who was one of the important organizers of the Congress and who will certainly see to it that you get the necessary information.

Sincerely yours,

Norbert Wiener

NW/emr

Department of History and Logic of Science
Indiana University
Bloomington, Indiana

February 11, 1961

Tentative Invitation to the

SESSIONS OF SECTION L

(for History and Philosophy of Science)

at the Meeting of the

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

Denver, Colorado . December 26-31, 1961

Dr. Raymond L. Taylor, Administrative Secretary of the AAAS, has asked me to help Mr. John W. Streeter, Secretary of Section L, organize a program for Section L for the December Meeting. The main emphasis of our sessions is to be on philosophy of science, although a session on history of science is planned.

My purpose here is to ascertain your reactions to the following ideas, as well as to secure, as soon as possible, expressions of interest on the part of prospective participants in symposia, and of speakers for papers to be presented.

The Washington office of the AAAS requests that our program be submitted not later than April 24. Hence, I shall appreciate a prompt response from you.

In accordance with the policies of the AAAS, our program should be of general and interdisciplinary interest. We are expected to attract audiences of varied background; our papers and symposia should not be excessively technical, esoteric, or concerned with minutiae. It should be possible to avoid extreme technicality as well as oversimplified popularization. A 'golden mean' program of this type should impress the importance of work done in the Logic and Methodology of the Sciences on a larger group of scientists and educators.

A tentative list of general topics for symposia or related lectures follows, with names of scholars who appear to me competent to deal with the topic(s) (or some sub-topic) under which they are listed. Although several of these names appear under more than one

topic, it is assumed that any one scholar should present only one paper, but may appear as a symposiast or discussant on (at most) one other occasion. Since, in many cases, I am not sufficiently aware of your special current preoccupations, you may well prefer to speak on a topic for which I did not list you. Please feel free to inform me if this is the case. Let me know about scholars whom I did not happen to list. Any ideas on further topics, and speakers for them, are also welcome.

To be quite explicit, I know of no funds from which travel expenses for the participants at the AAAS Meeting could be provided. I realize that consideration of expenses may be prohibitive for many of you who would have to travel from distant points. In order to organize a worthwhile and successful meeting I am addressing this letter to a large number of scholars.

As soon as a manageable program is decided upon, invitations will be issued either by me or by Mr. Streeter. These invitations should reach the prospective participants before the end of April.

The suggested list of symposia and group topics follows.

1. Problems of Theory Construction:
   The Cognitive Status of Theoretical Terms:
   Counterfactual Universals

Nelson Goodman	Ernest Nagel
W. H. Hay	Israel Scheffler
C. G. Hempel	Wilfrid Sellars
Grover Maxwell	K. R. Popper
Henry Mehlberg	Roger Newton

2. Empirical and Conventional Elements
   in Physical Theory: Laws of Nature

Max Zorn	Ernest Nagel
E. W. Adams	Joseph Epstein
Gustav Bergmann	Hilary Putnam
P. K. Feyerabend	Patrick Suppes
Adolf Grünbaum	Henry Margenau
C. G. Hempel	Gerald Holton
Henry Mehlberg	Robert Sternfeld

3. Causality: Laws of Nature:
   Counterfactual Universals

Michael Scriven	Virgil Hinshaw
Grover Maxwell	Mario Bunge
David Hawkins	S. Morgenbesser

4. Can Machines Be Conscious?

Norbert Wiener
Michael Scriven
Roger Buck
Max Black
Herbert Feigl
David Shwayder
A. C Danto
Dr. Watanabe
J. N. Garver
Herbert Hochberg
David Hawkins
Arthur Burkes

5. Induction, Probability and Simplicity

K. R. Popper
F. L. Will
D. C. Williams
Stephen Barker
Nelson Goodman
J. G. Kemeny
Adolf Grünbaum
Nicholas Rescher
Wesley Salmon
Michael Scriven
F. J. Anscombe
Rudolf Carnap
Grover Maxwell
Henry Finch
Pesi Masani
Patrick Suppes

6. Methodological Problems of Psychology and Social Science: Reflexive Predictions

Gustav Bergmann
May Brodbeck
A. M. Buchwald
D. T. Campbell
Friedrich Hayek
Herbert Hochberg
Michael Scriven
H. A. Simon
Milton Singer
Roger Buck
Merle Turner
Richard Rudner
Douglas Ellson
Paul Meehl

7. Relations between History of Science and Philosophy of Science

J. N. Garver
Erwin Hiebert
S. E. Toulmin
Clifford Truesdell III
Max Black
David Hawkins
Julius Weinberg
Derek Price
Robert S. Cohen
Thomas S. Kuhn
Harry Woolf
Gerald Holton
Gustav Bergmann
Ernest Nagel
Nicholas Rescher
G. de Santillana
May Brodbeck
Marshall Clagett
I. Bernard Cohen
Joseph Epstein
Max Fisch
John Murdoch
Charles Gillispie
Edward Grant
A. R. Hall
M. B. Hall
S. Morgenbesser

8. Explanation and Prediction:
Historical Explanation

C. G. Hempel	Ernest Nagel
A. C. Danto	Benjamin Nelson
William Dray	John Yolton
Alan Donagan	Hilary Putnam
Michael Scriven	Henry Guerlac

9. Reductionism

P. K. Feyerabend	Grover Maxwell
Ernest Nagel	Rudolf Carnap
C. G. Hempel	Burton Dreben
Herbert Feigl	May Brodbeck

These are my suggestions. They were formed after initial canvassing of a few prospective participants. It would be desirable also to include presentations in the philosophy of the biological sciences. Ideas along these lines will be welcome; since it is uncertain how large a place our sessions can be given within the AAAS program, definite commitments cannot be made at the moment.

Repeat: Please reply to me as soon as possible, i.e., preferably within a week after the receipt of this circular letter. If I have no reply from you by March 10, I shall assume that you are not interested, or are unable to participate in the program.

If feasible, please formulate the title of your proposed paper, or at least specify the area of your topic. A good deal of work will yet have to be done in the preparation of what we hope will be a substantial and stimulating program.

I shall appreciate your prompt attention. With many thanks,

Very sincerely yours,

Norwood Russell Hanson

Norwood Russell Hanson
Chairman (for 1961), Section L - AAAS

Chairman of the Department of
History and Logic of Science
Indiana University
Bloomington, Indiana

NRH mlm

[ans 3/13/61]

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

$2.75 19

Memo to Night letter to Wiener Room Ext.

Marsans Tower
Barcelona, Spain

Advise Prof. Norbert Wiener contact Dean of Sciences Montpellier re lecture Date.

Cabling because mail slow.

Eva Ritter

from 3 p.m., Febr. 12. Room Ext.

MURAN BOSTON

TUFTS UNIVERSITY

DEPARTMENT OF ENGLISH

MEDFORD 55, MASSACHUSETTS

February 13, 1961

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

Dear Professor Wiener:

As chairman of the University Lecture series at Tufts I was pleased to learn from Professor Julian Knipp that you accepted an invitation to lecture at Tufts in the spring after your return from Europe.

Professor Knipp had suggested the evening of March 12, mistakenly thinking it was a Tuesday (the night the lectures are customarily presented) but the Tuesday of that week is March 14. I wonder if the 14th is acceptable to you. If not, would May 9 be? date

I believe that Professor Knipp suggested as a topic "Creativity in Art and Science," but of course the topic is entirely up to you; any non-technical topic suitable for the University public as a whole is eminently satisfactory.

I should be most appreciative if you would let me know at your earliest convenience what date and topic are satisfactory to you. I hope that whatever date you select you can join us for dinner before the lecture.

Sincerely,

Sylvan Barnet
ap

Sylvan Barnet, Chairman
University Lecture Committee

SB:ap

[ans 2/24/61]

HARRY B. HENSHEL
BULOVA PARK
FLUSHING 70, N.Y.

PRESIDENT
BULOVA WATCH COMPANY, INC.

February 13, 1961

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

Dear Professor Wiener:

Your letter of February 9 has made us curious indeed. I am wondering what prompted it, since our connection and interest in M.I.T. is great and deep and anything we can do to increase it and help, we would be only too happy to try.

I am wondering whether you read about it or whether Jim McCormack or Dr. Killian, or both, may have called it to your attention. Jim McCormack is a member of our Board and Dr. Killian is an Accutron owner.

I agree that the mathematical theory of this watch and other timepieces would make an interesting student presentation, and if you would like to delve into it further, we would be very, very happy to welcome you here to talk to our scientists and engineers and to gather any material you would like to use for such a presentation, and which might be useful not only at M.I.T. but in other institutions as well.

We would be glad to cooperate with you in any way to make such a venture possible.

Sincerely,

Harry B. Henshel

H.B.Henshel:na

[ans 2/17/61]

THE DOCTORS MANGOLD
729 FIFTH STREET
YAZOO CITY, MISS.
PHONE 1326

February 13, 1961

Mrs. Eva-Maria Ritter
Secretary to Professor Wiener
Department of Mathematics
Massachusetts Institute of Technology
Cambridge 39, Massachusetts

Dear Mrs. Ritter,

During your absence Miss. Sargent was so kind as to write me that you and the Professor would be back in January, that is why I am addressing this letter to you instead of to Miss. Sargent. If you see her, please tell her how much I appreciate her courtesy.

You may remember that Professor Wiener once expressed some interest in my philosophical work and that at one time an interview was to have taken place. In order not to waste the Professor's valuable time needlessly, I thought it best that he should first have a chance to glance at my manuscript. Your letter of June 29, 1960 made it perfectly clear how impossible it was for him to do so.

I believe that I have now been able to condense the main ideas so thonoughly that it should take him no more than a few minutes to aquaint himself with them.

Kindly bring the enclosed article to his attention. On the last page I marked the questions upon which I am particularily anxious to obtain his advice.

I hope you enjoyed your visit in Europe.

Very truly yours,

K. P. Mangold

[ans 3/15/61]

● **Man Is Intelligent, But Is He Rational?**

How To Be Rational

For thousands of years man has been proud of his ability to think and to act reasonably. Man usually tries to explain the seemingly intelligent conduct of some animals as not due to conscious reasoning, but only as the result of instinct or biological necessity. Man has often been able to demonstrate how animals are unable to change their instinctive conduct sufficiently to solve problems presented by a sudden change in their surroundings and by unusual circumstances. Because they persist in doing what would have been good for them under normal circumstances, but that has now become harmful to them, their instinct leads to self-destruction; unwittingly they actually kill themselves.

History shows that man's conduct, especially his national conduct, has only too frequently not been reasonably intelligent, but it also shows that man has been able to adjust himself to new circumstances more rapidly than would probably have been the case, if his conduct had been controlled by instinct alone. Man is undoubtedly partially rational, but as long as he still permits intuitive knowledge and beliefs, that can not be confirmed by reason, to influence his conduct he has not yet fully earned the right to call himself the "rational" animal. Man's claim that his intuition is a gift of God does not prove that the instinct of animals is not also of divine origin and the very word "intuition" sounds suspiciously like a euphemism for the word "instinct."

Rockets with nuclear warheads represent a radical change in man's environment. It is very questionable whether man can adjust to them, fast enough by means of his only **partially** rational intelligence to escape extinction.

The cure that man seems to need most of all today is not a cure for the common cold, or for cancer, or for hardening of the arteries; man needs a cure for his irrationality; when one reaches its source, the cure presents itself.

The Origin of Irrationality

WHY IT REMAINS HIDDEN

The most intelligent can be irrational. A person who is very intelligent in most matters may be unreasonable about some things. He may be called irrational if he cannot justify his thoughts in respect to these things by correct reasoning.

But how can one tell that his reasoning is incorrect? It is true that logicians have laid down certain rules by which one can recognize correct reasoning, but if **man** is irrational the rules of these men may contain a fundamental error. The history of philosophy leads one to suspect as much. The purpose of reason is to find truth and consequently, if what the logicians call correct reasoning yields falsehoods instead of truths, we may suspect that their rules for correct reasoning are in some ways defective.

A fundamental rule in logic is that there may be no contradictions. Excluding contradictions led to many strange conclusions: an arrow cannot be shot from a bow because it actually can not even leave the bowstring and Achilles, running at his best can never catch up with a tortoise even when he is handicapped by only a few yards (Zeno); if everything is in a state of flux, then even the principle that everything changes must change (Cratylus); whatever is permanent cannot change or even move because any change would involve the contradiction that it ceases to be what it is, to become that which it is not, consequently, the only property the permanent can have is existence (Parmenides).

Although Zeno's conclusions are evidently absurd, philosophers have taken his arguments seriously for over 2000 years. For Cratylus to be right all change should have ended in his own lifetime.

One may form the opinion that everything changes by observing that everything one knows seems to possess the property of changeability. When one becomes convinced that there is something permanent, because it lacks this property of changeability, one should change one's opinion to: **not** everything changes. Cratylus, however, thought that the principle that **everything** changes must change and this must involve **everything.** The principle must therefore change into the principle that everything is changeless and therewith all change would have come to an end. It is only reasonable to presume that this static state of affairs must have come about almost immediately after the principle that everything changes came into being. If this occurred before the birth of Cratylus, it would have prevented his birth; if it occurred

after his birth it would have made him immortal, but in an unenviably immobilized condition. Cratylus was evidently not sufficiently consistent to draw these conclusions.

That Cratylus should have assumed a change in such an abstraction as a principle was probably due to the fact that he thought of it as having a partially material existence of its own.

The imputation of material qualities to the spiritual and the abstract is universal: the Greek gods enjoyed the sensual pleasures of their bodies; ghosts are visible and can even rattle chains; in Tibet a corpse is hacked up so that the crippled spirit can not go "a haunting"; the name of a prospective victim is used in the practice of magic along with such materials as some of his hair and nail parings to put a spell on him; abstractions such as Justice, Liberty, etc., are depicted as persons in pictures and statues thus giving them a personalized symbolic existence which the ancients probably imagined to be almost as materialized as that of the gods and goddesses who represented these abstractions. Modern man does not realize how much his imagination materializes the abstraction truth, and what fateful practical significance this has for him today. It blinds his reason. When Truth has been cleansed of its material contamination, the source of human irrationality appears.

TRUTH IS NOTHING BUT A PROPERTY SOME IDEAS HAVE

We may think of abstractions like bigness, smallness and equality as imaginary "things" and of each one as enjoying a separate existence of its own. Some philosophers (Plato) have done so and got themselves into trouble: if Tom is bigger than Dick, but smaller than Harry, Tom must be both big and small; Plato found this to be a contradiction. Most logicians no longer make this mistake: they think of bigness as an abstract property Tom has in relation to Dick; of smallness as a property he has in relation to Harry. However, logicians still fall into the same type of error because they think of the abstract property: truth, as the mysterious "thing": Truth.

As long as contradictions are inadmissible Truth can only be true; Truth can not be true and false at the same time. Apparently without realizing it, logicians seem to think of truth as something like the "permanent" of Parmenides which simply exists without having any other property or, as something "slightly" material like the principle of Cratylus. But, in practice, truth is merely a property which certain ideas have when they are in accord with certain facts of reality. Now, in practice, almost everybody also acknowledges the existence of two different realities—the spiritual and the material, the soul and the body or, to be more precise, the subjective and the objective. This means that an idea could be in accord with a fact of subjective reality and therefore subjectively true although, it is not in accord with the facts of objective reality and therefore objectively false. The fact that it is objectively false does not make it also subjectively false. Because there are two different realities—subjective and objective—there are also two different, separate truths—subjective truth and objective truth—which may contradict each other without necessarily proving that either one of them is false.

Many philosophers have accepted the concept of "two truths"; many have differentiated between theological and scientific truth, between faith and reason; some modern philosophers, like eager beavers, have even given the "two truths" new names — "emotive" and "referential"—which are, unfortunately, only less precise than the simpler terms —subjective and objective; scientists, in practice, acknowledge the existence of "two truths" because they go to great pains to exclude subjectivity from all their scientific investigations in order to find a purer objective truth.

The trouble seems to be that philosophers have not been sufficiently consistent in separating the "two truths."

SOLIPSISM—A SKELETON IN THE CLOSET

Solipsism is a belief—the belief that: "I alone exist!" Although it is acknowledged as logically irrefutable, philosophers, almost unanimously, reject it as absurd. Such inconsistency is embarrassing and solipsism is therefore treated as a skeleton in Philosophy's closet because it also exposes an apparent defect in logic. There is actually no need for all this embarrassment. If it is agreed that there are two truths—subjective and objective—then the belief in solipsism can be subjectively true although it is apparently objectively false.

In seeking pure objective truth, scientists attempt to exclude all subjectivity; to find pure subjective truth it is necessary to exclude **all** objectivity, that is, it is necessary to apply the scientific method in reverse. That solipsism is logically irrefutable need embarrass no one; it is not due to a defect in logic: the basic rules of logic are correct; it is right to exclude contradictions provided due allowance is made for contradictions between the two different realities; to avoid such contradictions it is necessary to exclude the non-relevant reality; when **all** objectivity has been excluded logically correct reasoning leads one to the absolute subjective truth of solipsism.

On the more abstract levels of thought almost everyone acknowledges, at least in practice, the existence of these two truths which remain true even when

they contradict one another. This is so in religion and in love, in art—especially in poetry—and in the emotional events of everyday life. It is apparently only on the prosaic level of the obvious that man finds it hard to keep the two truths apart. This is why solipsism seems to be absurd. But, as existence is something that can only be experienced subjectively and only by the individual, solipsism must be a perfectly natural and subjectively true belief. Because it conflicts with objectivity at the concrete level of the obvious it is repressed as absurd.

Awareness of one's own existence is the origin of all subjectivity. This subjectivity is not only primary, it is also purely subjective whereas secondary subjectivity, such as that of desire, purpose, sensation, love, emotion, sexuality, etc., is partly objective.

If we accept the objective findings of psychoanalysis that repressed subjectivity is not destroyed by repression, but manages to express itself in the form of delusions, illusions and rationalizations, then we have, in the repression of the belief in solipsism, the original and most deepseated root of irrationality.

Practically all so far, insolvable metaphysical problems can be explained as only pseudoproblems conjured up by the rationalizations of repressed solipsism. Seen in this light the weirdest philosophies suddenly become intelligible.

The Cure:

CONSCIOUS, UNREPRESSED SOLIPSISM

Existence can only be experienced as of **here** and **now**: it is therefore immovable and permanent; it can be thought of as standing outside of time (St. Augustine); it is changeless and indivisible; Parmenides was right when he said that the permanent has no other property than existence; it is the only true being which he called "the One" and which he thought of as having the shape of a sphere (as he probably felt "the One" inside his head this was a rather sensible shape for it to have).

An individual can only experience the pure subjectivity of his own existence. That must be why the monads of Leibnitz were "windowless" because they were subjective innerworlds that could not see each other subjectively; they could only communicate with each other through objective reality.

The "immaterialism" of the famous Irish philosopher, Bishop Berkeley, was almost undisguised solipsism; objects existed only because, and only as long as, they were being observed. If he had been a bit more consistent he would have separated subjectivity from objectivity completely and could then have countered objective objections objectively instead of diluting his subjective doctrine with objectivity; he could have said, what simple people understand better than logicians, that, in one sense, everything exists only because he exists, but, in another sense, he knows that the world can get along without him.

The over 2000 years of objection to the idea that the earth is not the center of the universe was primarily due to the fact that subjectively everybody is the center of the universe; this is still subjectively true although it is objectively false.

Although most philosophers acknowledged the existence of two totally different and separate realities, they usually tried to explain one in terms of the other because, they sought a single unifying principle which would explain how such totally different realities are able to act upon each other at all. Some therefore projected their subjectivity outwards and tried to deny the material environment by subjecting it to, or replacing it by, a "real," "ideal" spiritual environment (Parmenides, Plato, Leibnitz, Berkeley) or, they tried to make the spiritual material. None of these attempts was completely successful because none was sufficiently consistent. The idealists could never free themselves sufficiently from objectivity (even the extended, unlimited, all-pervasive "One" of Parmenides, in having the shape of a sphere, was objectively limited); the materialists could never free themselves entirely from the rationalizations of repressed subjectivity (the occasional atom of Epicurus that, for some mysterious reason was activated by free will and therefore, managed to swerve "just a little bit").

The problem of free will seems to trouble scientists and materialists more than theologians. Spinoza was completely consistent: "there can be no free will because the mind is determined in willing this or that by a cause, and this cause is determined by a cause and so on to infinity." For the religious determinist the cause may be God or, at least, of divine origin; for the materialist there should be a materially determined cause; for the scientist there should also be some cause because it is difficult for a scientist to deny the principle of causation without getting a bit mystical. However many scientists, who otherwise adhere to the principle of causation, attempt to prove the existence of free will by far-fetched inferences from the apparently uncaused behaviour of subatomic particles and quanta, or, they start out bravely to show how we are conditioned to select or reject in a certain way (by our physical constitution and the events that we have experienced since birth) only to have us mysteriously begin to select or reject "freely" long before getting to infinity.

Once the subjective character of existence is understood, there can be no more problem of free will. Because existence is experienced only in the immediate present we **feel** that we act freely because of what **we are right now.** How we got to be what we are is of no subjective interest. If the scientists would only grant themselves the right to a consciously acknowledged, subjective free will, they would have less difficulty following objective causation all the way to infinity.

About the only metaphysical problem that remains unsolved is: how can one be aware of one's own existence? Is it possible to build a mechanical brain that can experience its own existence? Some experts on mechanical brains seem to believe that they display subjectivity and are capable of such creative thought as the construction of hypotheses. Would such an expert believe one of his mechanical brains if it told him that it can feel its own existence? He may find it easier to believe that a tobacco mosaic virus can sense its own existence and a purpose to act upon its environment when, having been placed upon a tobacco leaf, it turns from an inert organic substance into a living thing.

For that matter, one can only infer that others experience their existence the way one does one's own. David Hume showed how all empirical knowledge is to be doubted and no one has, as yet, been able to refute him convincingly. It may be better to say that empirical knowledge is relatively doubtful because it is not as certain as knowledge of one's own existence and one's own is the only existence that one can "know." How can one "know" the "existence" of a mechanical brain if one cannot even "know" the "existence" of another human being? This is the problem of solipsism.

Philosophers have mixed subjective and objective reality according to each philosopher's personal formula; they have been objectively-subjective and subjectively-objective. Consequently they have all been to some extent irrational. By consciously acknowledging the subjective, **at its** origin, as of primary importance it is possible to have a scientific philosophy that is completely objective because, when the belief in solipsism is not repressed, one can be completely rational **subjectively,** and therefore also objectively completely rational.

THE PURPOSE OF A SCIENTIFIC PHILOSOPHY

The purpose of such a scientific philosophy that emphasizes the primary importance of subjectivity would be: to reverse the materialistic trend which tends to make the technological process an end in itself and thereby subordinates the spiritual to the material; to **serve subjectivity** by giving it undistorted information about objective reality so that it can attain **its** ends better; to develop the individual's subjective autonomy so that he can resist the enforcement of a conformity which threatens to destroy his individuality; to make him conscious that **he** is the measure of all things while, at the same time, teaching him to conform to social necessity by **reasonable** self-interest.

My pamphlet **PRECISE DEFINITION: KEY TO VICTORY** demonstrates the immense practical importance of undistorted information in politics. There can be no rational national purpose without it. Instead of wasting the heavily taxed public's money foolishly on ineffective foreign aid and on an unsuccessful arms race while, in spite of all this, the Western position deteriorates progressively, the West could rout the enemy in short order and at a trivial cost by simply employing the right kind of propagandistic ideas.

EXISTENTIAL PSYCHOANALYSIS

The fundamental flaw in Jean-Paul Sartre's existential phychoanalysis is due to his rejection of, or rather flight from, solipsism. A knowledge of the psychic manisfestations of repressed solipsism may have clinical value in the treatment of the maladjusted. It would make it possible to give them a firm foundation upon which to build a socially acceptable moral code of their own. Such a code develops almost automatically because reasonable self-interest employs the Golden Rule of Confucious: **"What I do not wish others to do unto me I also wish not to do unto others."**

During the past two years I have written to many philosophers and psychoanalysts to ask: 1) has anyone ever tried to solve the problem of solipsism by separating subjective truth radically from objective truth; 2) has anyone ever suggested that metaphysics contains illusions and rationalizations due to repressed solipsism? So far, I have received no direct answer to either question. I shall be very grateful to any reader who can give me a positive answer with pertinent references.

K. P. Mangold, M. D.
Yazoo City, Mississippi.

Most of the article PROPAGANDA AND THE NATIONAL PURPOSE, from the pamphlet PRECISE DEFINITION: KEY TO VICTORY was printed in the CONGRESSIONAL RECORD. Jan. 4, 1961.

60 West Station Road
Ocean City, New Jersey
February 13, 1961

Dean of Instructions
Massachusetts Institute of Technology
Cambridge, Massachusetts

Dear Sir:

I wish to obtain a copy of Professor Norbert Wiener's thesis on cybernetics for a research paper I am writing. I would appreciate it if you would forward this letter to him or in some other way help me to obtain a copy of this work.

Very truly yours,
Edward Williams

[ans 2/17/61]

ST. MARY'S SEMINARY
600 NORTH PACA STREET
BALTIMORE 1, MARYLAND

February 14, 1961

Dear Prof. Wiener,

To be very truthful with you, I was very surprised, but also very happy to receive your letter yesterday. However, I must be honest with you. I am not much of a mathematician and I'm afraid this paper will not be a very scholarly work. The major part of it will deal with Cybernetics and a smaller portion will deal with your life. Nevertheless, if you are still interested, I would consider it a very great privilege to send a second copy to you for what would be a greatly appreciated criticism.

The finished copy is due in the Rector's office by May 20th, and by the time I have it completed it will be about April 2nd. If you sill agree, I will send you a copy to criticize without, of course, holding you to any deadline at all. If it is my "pot luck" that you are able to get it to me in time I will be deeply grateful. If you are not, I will still be deeply grateful for the interest you have shown and the added incentive your interest has given me. Without seeming melodramatic, I realize that you are a very busy man.

Thank you for your time, trouble, and interest.

Very Sincerely,

Robert F. Kiely

Robert F. Kiely

[ans 2/17/61]