March 11, 1948

Dear Professor Prager:

Unless my memory has been playing tricks on me, you told me, one day in my office during one of the early years of the war, that one of your colleagues (I think a mathematician) asked you if you would be interested to cook up some coded message on which he could try a cryptographic scheme, or process, or device: that you wrote out a message in Turkish and then coded it by some rather complicated code into a column of five digit numbers: and that he brought this back to you within a short time (actually, it seems to me that you said the next day) with the remark that they had apparently not had much success: but that what he handed you was, when properly broken up into words, and when corrected mildly, your original message in Turkish. Can it be that I have invented these details, or is this really what you told me?

If you did tell me this, I wonder if this story is to be treated as confidential or secret, in the technical military sense; or is it a story which I am at liberty to repeat?

I am asking this not because I have any interest in the cryptographic problem itself, but because this story (if it is indeed correct) has, it seems to me, some bearing on another matter which does interest me very much - namely, the possibility that the written languages have certain invariant properties which are independent of the language in question. For a variety of reasons it seems to me that

this is likely to be true; and if it is in fact true, then it has, I

think, interesting bearing on the problem of translation from one

language to another. It is actually this last problem in which I am

interested.

Cordially,

Warren Weaver.

Professor W. Prager
Brown University
Providence 12, Rhode Island

WW:aeb

March 15, 1948

Dr. Warren Weaver
The Rockefeller Foundation
49 West 49th Street
New York 20, New York

Dear Dr. Weaver:

Thank you very much for your letter of March 11. Your account of the incident is completely correct. The colleague in question was Professor R. E. Gilman of our Mathematics Department, and I am certain that he will be glad to explain his deciphering technique to you if you should be interested. As far as I remember, it was based on the frequencies of the letters, pairs of letters, etc. in English. The code, incidentally, was not a simple substitution. I should perhaps add to your account that, before coding, I somewhat simplified the spelling of the original Turkish message by replacing ç, ğ, ı, ö, ş, ü by c, g, i, o, s, u, respectively, though these letters are pronounced differently. Gilman's result would have been read correctly and without difficulty by anyone familiar with the language. Please feel free to use the story in any manner you wish.

May I use this opportunity to give you some information concerning recent and impending changes in our staff? As you probably know, we lost Professor Lin to M.I.T. with the beginning of this academic year. At the same time, however, we appointed Professor J. B. Diaz (formerly of the Carnegie Institute of Technology) Professor D. C. Drucker (formerly of the Illinois Institute of Technology) and Professor P. S. Symonds (formerly of the Naval Research Laboratory). Professor Drucker's has proved to be a very strong appointment, far beyond our fondest hopes. Coming fall, we are going to loose Professor Handelman who has accepted an appointment at the Carnegie Institute of Technology in preference of the editorship of the new Applied Mechanics Reviews which was also offered to him. At that time, however, two new appointments will become effective: Dr. E. H. Lee (Ph.D. Stanford U., now Fellow, Caius College, Cambridge) and Dr. W. D. Hayes (Ph.D. California Institute of Technology, now Jewett Fellow, Princeton). Dr. Lee is British born, took his Bachelor degree at Cambridge (honors) and married an American while studying at Stanford. He has been most highly recommended by Sir Geoffrey Taylor (Cambridge) and Professor Sidney Goldstein (Manchester) with both of whom he studied in Cambridge, as well as by Professor Hoff of the Polytechnic Institute of Brooklyn

who was a fellow student of his in Stanford. In addition to his
fellowship at Cambridge he is now in charge of the coordination
of the work on civilian uses of atomic power under the Ministry
of Supply. Dr. Hayes happens to be born in China; he took his
Ph.D. with Kármán and by whom he is most highly recommended. We
are looking forward to the arrival of these two men on our campus.
Incidentally, breaking a rule followed so far, Dr. Wriston has
agreed to appoint both of these directly in Applied Mathematics,
Dr. Lee as Associate Professor and Dr. Hayes as Assistant Professor.
Almost all other appointments, including my own, are in some other
department (Mathematics, Physics, Engineering) with temporary assign-
ment to this Division (on full or part time basis). The new appoint-
ments may thus be interpreted as a sign of increasing stability,
which is all to the good.

Sincerely yours,

W. Prager, Chairman
Graduate Division of
Applied Mathematics

WP:fg

March 22 , 1948

Dear Professor Prager:

      Thank you so much for your letter. About how long, by the way, was the message?

      I am most interested in all the important news about the changes in personnel in your applied mathematics group. The situation seems to be developing in a most gratifying way.

      Cordially,

      Warren Weaver.

Professor W. Prager
Brown University
Providence 12, Rhode Island

WW:aeb

BROWN UNIVERSITY

PROVIDENCE 12, RHODE ISLAND

March 23, 1948

Dr. Warren Weaver
The Rockefeller Foundation
49 West 49th Street
New York 20, New York

Dear Dr. Weaver:

     Thank you very much for your letter
of March 22. Professor Gilman insisted
on a message of at least 80 letters and
I actually gave him nearer to a 100.

     With best regards,

          Yours very sincerely,

          W. Prager

WP:fg