

JOHN A. ABBOTT, M.D.

MASSACHUSETTS GENERAL HOSPITAL  
BOSTON 14, MASSACHUSETTS

TEL. LAFAYETTE 3-8200  
EXTENSION 382

September 14, 1949

Dr. Warren S. McCulloch  
Whippoorwill Road  
Old Lyme, Connecticut

Dear Dr. McCulloch:

I have been asked to review a re-edition of Boole's "Mathematical Analysis of Logic" for "Psychosomatic Medicine". I thought the best approach would be to treat its acceptance for review by this journal as historically symptomatic of the gradual penetration of mathematical logic into the fields of neurology, and ultimately I hope of psychiatry and psychology.

The world of neurophysiology is familiar with this penetration as it is apparent in the papers by you and Pitts and, in traces, in "Cybernetics".

I think that Harold Jeffreys in "Mind", Volume 45 makes some application of mathematical logic to the reasoning of children. It is a long time since I have read the paper and I may be giving the wrong reference.

My real reason for writing is to ask if you are familiar with significant work which shows the penetration of mathematical logic into the mental and neurological sciences and which I have not mentioned in the preceding meager list.

Perhaps there are too many for you to enumerate except as you remember the high spots. Perhaps there are so few that I need not feel embarrassed for having known of so few myself.

Your encouragement at Atlantic City spurred me to an hour's work most every morning of my vacation. I was pleased with what I accomplished but have yet to pull it together and must probably abandon the effort to reduce primitive ideas to defined ideas and resign myself to more primitive ideas than I want in making an application of what I understand about mathematical logic to psychological logic formulation. This and the daily treadmill have kept me away from the other two papers, one merely to be typed, the other to be boiled down, which encouragement has made me hope I might inflict on you for critical damnation.

Dr. Warren S. McCulloch

-2-

September 14, 1949

Please excuse a long-winded letter. I think the <sup>4B</sup> para-  
graph states concisely what I and I hope you are interested in.

Sincerely,



John A. Abbott

JAA/nln

October 19, 1949

John A. Abbott, M. D.  
Massachusetts General Hospital  
Boston 14, Massachusetts

Dear Dr. Abbott:

In reply to your recent letter, I believe the first important American application of such notions as Boole's, to the problem of human thinking imparted in the head, are to be found in the marvelous papers of Charles Peirce. He was, as you probably remember, closely associated with Oliver Wendell Homes, Sr., and helped in the education of his son. You will find in Homes' Phi Beta Kappa lecture -- I think it is called "Mechanism in Mind and Morals," the first approach to human memory as a serious undertaking by a physician. Of course, there are the essays of Clevenger, managing officer of Kankakee State Hospital, for whom Adolf Meyer was pathologist. I know of no other man who adumbrated the notions in the light of Cajal's neuronal hypothesis and anatomy. Cajal, himself, began to formulate as a circuit theory, of the nervous system, including problems of learning. You should certainly refer to Cajal, himself.

Jerry Lettvin and I are talking as we write. We remember that in the 1700's there are a Russian and a German, who proposed feedback to explain what Magendie defined as a reflex. There are, of course, Cannon's and Rosenblueth's papers on homeostasis, and you know the papers of Magendie and Bell which are commonly referred to. If you want to be humorous, you should include the early passages of Hobbes' "Leviathan" and even more incredibly, the early papers of Swedenborg, on the motions of the brain where he tried to attribute mental functions to these motions. Of course, I think there is nothing new, in a sense, in any of these and that you will find much of this in the Pre-Socratics. It would certainly pay you to get hold of Walter Pitts, who is back at M.I.T. now and living at 51 Dana Street. I am sure he will introduce you to Alcmaeon, who first noticed that our sense organs make opposites for us, (instead of mere logical negates), and to Hippasos of Rhodes, whose views about the soul were most modern.

I take it this is enough to keep you busy for the moment, but for your own sake I would suggest that you get hold of Shannon's reprints, particularly his studies of the probabilities, with which one letter follows another, one word follows another, etc. If this is not enough to keep you busy, then let Walter lead you into the medicine of the Neo-Platonists and Alexandrian school.

More power to your elbow,

Warren S. McCulloch

John A. Abbott

-2-

October 19, 1949

P.S. By the bye, I thought you were going to send me one of your own strictly logical papers. I expect to be in Boston on the 17th of November for the Boston Society of Psychiatry and Neurology. If you are not a member, please consider yourself as my guest. I would like to chew the fat with you.

W.S.M.

October 28, 1949

John A. Abbott, M.D.  
Massachusetts General Hospital  
Boston 14, Massachusetts

Dear Dr. Abbott:

Thank you for your letter of October 25, which is addressed Dr. McCulloch. He may be able to lunch with you on November 17 or on the 19th, as he will be in Worcester for a talk to Hudson Hoagland's group on Friday, the 18th. Would Saturday, November 19, be a convenient date?

Sincerely yours,

Anne R. Silverman,  
Secretary to  
Warren S. McCulloch, M.D.

WSM:ars

JOHN A. ABBOTT, M.D.  
MASSACHUSETTS GENERAL HOSPITAL  
BOSTON 14, MASSACHUSETTS

TEL. LAFAYETTE 3-8200  
EXTENSION 382

October 25, 1949

Dr. Warren S. McCulloch  
Illinois Neuropsychiatric Institute  
912 South Wood Street  
Chicago 12, Illinois

Dear Dr. McCulloch:

Molly Brazier and I were wondering if you and she, and perhaps Pitts and I, could get together as a very small group to talk shop sometime when you are here for your talks on Thursday, November 17, and Friday, November 18. We would like you to be our guests for lunch on Wednesday, the sixteenth, or Saturday, the nineteenth, or for supper any evening.

If there is any time that it would be convenient for you to join us in this way, I do hope you will let me know, and we will adapt our schedule to your convenience.

Sincerely yours,



John A. Abbott, M. D.

JAA:ls

cc L Warren P.

TEL. LAFAYETTE 3-8200  
EXTENSION 382

JOHN A. ABBOTT, M.D.  
MASSACHUSETTS GENERAL HOSPITAL  
BOSTON 14, MASSACHUSETTS

November 10, 1949

Miss Anne R. Silverman  
Secretary to Dr. W. S. McCulloch  
University of Illinois  
College of Medicine  
912 South Wood Street  
Chicago 12, Illinois

Dear Miss Silverman:

This is just a line to say that Dr. Brazier and I are looking forward to having lunch with Dr. McCulloch at 1:30 on Saturday, November 19.

Though he may not know it, we are among those who are dining with him on November 17.

Sincerely yours,

*John A. Abbott*

John A. Abbott, M. D.

JAA:ls

TEL. LAFAYETTE 3-8200  
EXTENSION 382

JOHN A. ABBOTT, M.D.  
MASSACHUSETTS GENERAL HOSPITAL  
BOSTON 14, MASSACHUSETTS

November 3, 1949

Miss Anne R. Silverman  
Secretary to Dr. Warren S. McCulloch  
University of Illinois  
College of Medicine  
Department of Psychiatry  
912 South Wood Street  
Chicago 12, Illinois

Dear Miss Silverman:

We would be more than pleased to have lunch with Dr. McCulloch on Saturday, November 19, 1949. Would luncheon at 1:30 p.m. be timely, or would Dr. McCulloch prefer something earlier?

Sincerely yours,

*John Abbott*

John A. Abbott, M. D.

JAA:ls

*OK*  
~~Care~~ to John A. Abbott saying November 19 at 1:30 P.M.  
is O.K.

anne silverman

April 4, 1950

Dr. John A. Abbott  
Massachusetts General Hospital  
Boston 14, Massachusetts

Dear Dr. Abbott-

Many thanks for letting me see your paper. I agree that there are some loose ends, and I would add that there is some redundancy in the presentation which, in the elegant final version, you will probably eliminate. I am afraid that in a sense you have joined the conspiracy, or so it seems to one as far removed as I am from any society of symbolic logicians.

It would have helped me enormously--though I am familiar with Quine's work--had you condescended to define a few technical terms, such as quantificational preclusion, exportation, definitional translation, and perhaps even alphabetic variation, although in the last case I am not sure whether mere alphabetic variation as I have known it does all you require of it here. At least I have not been able to convince myself that it does.

Finally, I am not familiar with the word "medadically", which, of course, I suspect of being a stenographic error, for we noted several and took the liberty of correcting them in your text. There is one sentence, on page 118, which needs either punctuation or parentheses to help your reader in the matter of scope of the "else" and the "or"s. I think I know what it means, but I am sure it is capable of several interpretations. But these are trivial matters.

In substance, I believe you are correct from cover to cover, and, if you are, I know it is interesting, and I think it is important. Many thanks for letting me have a go at it. I wish I was anywhere yet with my tractatus neurologico-logicus, but as yet it is little more than a few notes on a few cards. As soon as it has evolved enough structure to be intelligible I shall pester you with it, but I am afraid that will not happen unless I break a leg.

Yours as usual, en route  
hither and yon,

Warren S. McCulloch, M.D.

WSM p  
encl

JOHN A. ABBOTT, M.D.  
MASSACHUSETTS GENERAL HOSPITAL  
BOSTON 14, MASSACHUSETTS

TEL. LAFAYETTE 3-8200  
EXTENSION 382

March 21, 1950

Dr. Warren S. McCulloch  
University of Illinois  
College of Medicine  
912 South Wood Street  
Chicago 12, Illinois

Dear Dr. McCulloch:

Here, at last, is the paper which you said  
you would be good enough to read.

You will find that there are still loose ends.  
But I have tied up as many as I could, working alone.

I think the whole paper poses the question of  
why and where are the savants hiding the correct  
version of the formulations for which I have been  
forced, because of their learned conspiracy, to  
sweat out single handed these probably fumbling  
and incorrect approximations.

I do hope that you will still want to  
criticize it.

With best wishes,

Sincerely yours,

J. Dr. J. Abbott

John A. Abbott, M. D.

JAA:ls

JOHN A. ABBOTT, M.D.  
MASSACHUSETTS GENERAL HOSPITAL  
BOSTON 14, MASSACHUSETTS

TEL. LAFAYETTE 3-8200  
EXTENSION 382

12 February 1953

Dr. Warren McCulloch  
Mass. Institute of Technology  
77 Massachusetts Avenue  
Cambridge, Massachusetts

Dear Warren:

I wonder if I could have the reprint that we sent on to a friend of yours? Scribble his address on the margin of this letter and I will write to him.

I neglected to copy the reference before sending it.

It was on aureomycin in the treatment of epilepsy.

I wish I could have had more than a glimpse of you at Penfield's talk on Tuesday, the tenth.

Sincerely,



John A. Abbott, M. D.

JAA/lf

*Answered (long hard)*  
Feb. 16 will get copy  
Fred not work  
from

JOHN A. ABBOTT, M.D.  
MASSACHUSETTS GENERAL HOSPITAL  
BOSTON 14, MASSACHUSETTS

TEL. LAFAYETTE 3-8200  
EXTENSION 382

2 July, 1953

Warren S. McCulloch, MD  
Research Laboratory of Electronics  
Massachusetts, Institute of Technology  
Cambridge, Massachusetts

Dear Dr. McCulloch:-

Your reprint of "Studies in Carbohydrate Metabolism and its Regulation in Health and Disease of the Central Nervous System" has come.

I look forward to beginning my study of it at once and to writing you again when I have finished it.

Thanks so much for sending it to me -- a welcome souvenir of your evening at the meeting of the Boston Society of Psychology and Neurology.

Sincerely,

*John A. Abbott*

John A. Abbott, M.D.

JAA/ec

JOHN A. ABBOTT, M.D.  
MASSACHUSETTS GENERAL HOSPITAL  
BOSTON 14, MASSACHUSETTS

TEL. LAFAYETTE 3-8200  
EXTENSION 382

10 July, 1953

Warren S. McCulloch, M.D.  
Research Laboratory of Electronics  
Massachusetts Institute of Technology  
Cambridge, Massachusetts

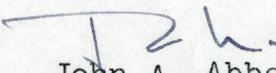
Dear Warren:-

I have finished reading your CHO paper with great interest. There was one sentence at the start (sentence # 4) which I thought might mean something to me if it had a coma, but perhaps it was just that I got stuck on the wrong gestalt.

Essentially for me it was a report from the frontiers of a new continent where I am barely acquainted with the old-established settlements. I am amazed that this paper and your talk based on it should be the ~~last~~ rumors which have reached me of those extraordinary chemical disturbances which have been found in certain psychotics. I should think there would have been a gold rush with attendant clamor loud enough to have reached even my provincial ears.

I would like to have heard your talk in London. ~~I~~ felt a little sad as I filed the English EEG Society's notice. Perhaps you will send me a reprint of that too.

Sincerely,

  
John A. Abbott, M.D.

JAA/ec

Quotation and Extension as Primitive Ideas:  
a Tentative Outline for an Example of a Type  
of Possible Approach to Certain Problems of  
Psychology.

- PN 1 ... ,
- PN 2.1 a, b, c, ...  
 $a_1, a_2, \dots, a_n, b_1, \dots$
- \*PN 2.11 p, q, r.  
 $p_1, p_2, \dots, p_n, q_1, \dots$
- \*PN 2.12 x, y, z  
 $x_1, x_2, \dots, x_n, y_1, \dots$
- PN 2.121  $\hat{a}$
- \*PN 2.13  $F(\hat{a}_1, \hat{a}_2, \dots, \hat{a}_n),$   
 $G(\hat{a}_1, \hat{a}_2, \dots, \hat{a}_n),$   
 $H(\hat{a}_1, \hat{a}_2, \dots, \hat{a}_n), \dots$   
 $F_1(\hat{a}_1, \hat{a}_2, \dots, \hat{a}_n), \dots$
- \*PN 3 its being true that  $\hat{p}$  is incompatible with its being true  
that  $\hat{q}$
- \*PN 4 every and any unit,  $\hat{a}$ , for example, statable, namable, or  
predicable, as the case may be, is such that
- PN 4.1 .. ::, ::, ::, ::, ::, ::, ::, ...
- \*PN 5 " $\hat{a}$ "
- \*PN 6  $\hat{a}$  is extension of ...
- \*PN 7 " $\hat{p}$ " is valid.

- Op 1.1 Alphabetization
- Op 1.2 Alphabetic variation
- Op 1.3 Alphabetic limitation
- Op 1.4 Alphabetic elaboration
- Op 2.1 Validation

Dear Warren: There are  
probably too many un-  
corrected errors in this  
outline, so I do not  
go into detailed strategy;  
but it serves for to  
show at a brief  
stroke what can  
be done defined in  
terms of the  
primitive ideas.

I wish  
someday  
that I could go  
through it in  
detail with you.  
Sincerely  
John  
Tu 18 May 54

Op 3.1 Closure  
Op 3.2 Unclosure  
Op 4.1 Substitution of biconditionals  
Op 5.1 Definition  
Op 5.2 Substitution of defined and defining expressions  
Op 6.1 Simple inference  
Op 6.2 Valid-conditional inference  
Op 7.1 Instancing  
Op 8.1 Assertion

D 1.1  $F \underline{\text{for}} F (\hat{a}_1, \hat{a}_2, \dots, \hat{a}_n)$   
D 1.2  $F x_1 x_2 \dots x_n \underline{\text{for}} F (x_1, x_2, \dots, x_n)$   
\*D 2.1  $p/q \underline{\text{for}} p$  stroke  $q \underline{\text{for}}$  its being true that  $p$  is incompatible with its being true that  $q$ .  
\*D 2.2  $\neg p \underline{\text{for}} \neg(p) \underline{\text{for}}$  not  $p$   $\underline{\text{for}}$  it is false that  $p$   $\underline{\text{for}}$   $p/p$   
\*D 2.3  $p \vee q \underline{\text{for}} p \text{ or } q \underline{\text{for}} \neg p/\neg q$   
\*D 2.4  $p \cdot q \underline{\text{for}} p \text{ and } q \underline{\text{for}} \neg(p \vee \neg q)$   
\*D 2.5  $p \rightarrow q \underline{\text{for}}$  if  $p$ , then  $q \underline{\text{for}} \neg(p \cdot \neg q)$   
\*D 2.6  $p \equiv q \underline{\text{for}}$   $p$  if and only if  $q \underline{\text{for}} p \rightarrow q : q \rightarrow p$   
D 3.1 (a)  $\underline{\text{for}}$  every and any unit, a for example, statable, namable, or predictable as the case may be, is such that  
D 3.11  $(a_1) (a_2) \cdot \underline{\text{for}} (a_1) : (a_2) \cdot$   
D 3.12  $(a_1, a_2, \dots, a_n) \underline{\text{for}} (a_1) (a_2) \dots (a_n)$   
D 4.1 a ext ...  $\underline{\text{for}}$  a extension ...  $\underline{\text{for}}$  a is extension of ...  
D 5.1 val 'p'  $\underline{\text{for}}$  "p" is valid  
D 6.1 (Ea)  $\underline{\text{for}}$  at least one unit, a for example, namable, statable or predictable as the case may be, is such that  $\underline{\text{for}} \neg(a) \cdot$

- D 6.11  $(Ea_1)(Ea_2)$ . for  $(Ea_1):(Ea_2)$ .
- D 6.12  $(Ea_1, a_2, \dots, a_n)$  for  $(Ea_1)(Ea_2) \dots (a_n)$
- D 6.31 for every  $a_1, a_2, \dots, a_n$ ,  $Fa_1 a_2 \dots a_n$  for every  
 $a_1, a_2, \dots, a_n$  is such that  $Fa_1 a_2 \dots a_n$  for  
 $(a_1, a_2, \dots, a_n)$ .  $Fa_1 a_2 \dots a_n$
- D 6.32 some for at least one
- D 6.33 for some  $a_1, a_2, \dots, a_n$ ,  $Fa_1 a_2 \dots a_n$  for some  
 $a_1, a_2, \dots, a_n$  is such that  $Fa_1 a_2 \dots a_n$  for  
 $(Ea_1, a_2, \dots, a_n)$ .  $Fa_1 a_2 \dots a_n$
- D 6.34  $(a_1, a_2, \dots, a_m)(Eb_1, b_2, \dots, b_n)$ . for  $(a_1, a_2, \dots, a_n):$   
 $(Eb_1, b_2, \dots, b_n)$ .
- D 6.35  $(Ea_1, a_2, \dots, a_m)(b_1, b_2, \dots, b_n)$  for  $(Ea_1, a_2, \dots, a_n):$   
 $(b_1, b_2, \dots, b_n)$ .
- D 6.36 every  $a_1, a_2, \dots, a_m$  is such that some  $b_1, b_2, \dots, b_n$  is  
such that for  $(a_1, a_2, \dots, a_m)(Eb_1, b_2, \dots, b_n)$ .
- D 6.37 some  $a_1, a_2, \dots, a_m$  is such that every  $b_1, b_2, \dots, b_n$  is  
such that for  $(Ea_1, a_2, \dots, a_m)(b_1, b_2, \dots, b_n)$ .
- D 7.1  $x$  is the extension of "a" for  $(y)$ .  $y$  ext "x"  $\equiv$   $y$  ext "a"
- D 8.1  $a'$  for  $a_1$ ,  $a''$  for  $a_2$ ,  $a'''$  for  $a_3$ , ...
- D 9.1  $x$  is a unit for  $(Ea)$ ,  $x$  ext "a".  $\therefore (Ep, y, F, z) \therefore$   
 $x$  ext "p" V  
 $x$  ext "y" :V:  
 $Fz : Fz \equiv x$  ext "z" for  
 $(a) :: x$  ext "a".  $\therefore$   
 $(Ep, y, F, z) \therefore a \equiv p. V.$   
 $a \equiv y. V:$   
 $Fz : Fz \equiv x$  ext "z"
- D 9.2  $x$  is a fact for  $(Ea)$ .  $x$  ext "a".  $\therefore (Ep)$ .  $x$  ext "p" for  
 $(a) : x$  ext "a".  $\therefore (Ep)$ .  $a \equiv p$
- D 9.3  $x$  is a thing for  $(Ea)$ .  $x$  ext "a".  $\therefore (Ey)$ .  $x$  ext "y" for  
 $(a) : x$  ext "a".  $\therefore (Ey)$ .  $a = y$ .
- \*D 9.4  $x$  is a trait of  $y$ 's for  $(a) \therefore x$  ext "a".  $\therefore$   
 $(Ef) : Fy : Fy \equiv x$  ext "y":  $(z)$ .  $z$  ext "x"  $\therefore z = x$
- \*D 9.41  $x$  is a trait for  $x$  is a characteristic for  $x$  is a property  
for  $x$  is functional as against organic for  
 $(Ey)$ .  $x$  is a trait of  $y$ 's.

- D 9.5      x is a part of y for (a):: x ext "a" . ):  
               (EF):  $\exists y \in x \text{ ext } "y": -(z). z \text{ ext } "x" \rightarrow z = x$
- D 10.1     the statement that p for the statement, "p", for "p".
- D 10.2     it is true that p for "p" is true for p
- D 10.3     the extension, if any, of "x" for x
- D 11.1     x is an image for (Ey, z):: x ext 'y' . z ext 'y' , z ext  
               x:: (c'):: z' ext x . ) : z' = z. V. -(z' = z) . z' ext  
               z:: (z''):: z'' ext z. , z'' ext x . -(z'' = z).
- \*D 11.2    z is imagerward extension of x for x is an image . z ext x.  
               (Ey):: x ext "y" . z ext 'y' :: (z'):: z' ext x. ) :  
               z' = z . V. -(z' = z) . z' ext z:: (z''):: z'' ext z. ).  
               z'' ext x . -(z'' = z).
- D 11.21    z is the imagerward extension of x for z is imagerward ex-  
               tension of x.
- \*D 11.3    z' is imagedward extension of x for x is an image . z' ext x.  
               -(z' is imagerward extension of x).
- D 11.31    z' is the imagedward extension of x for z' is imagedward  
               extension of x: (z''). z'' is imagedward extension of x )  
               z'' ext "z'" : (z'''). z''' ext "z'" ) z''' is  
               imagedward extension of x
- D 11.4     x is an image of z for z is the imagedward extension of x
- D 11.41    x is y's image of z for x is an image of z . x ext "y"
- \*D 12.1    z is intention of "a" for (Ex): x is an image. z is imager-  
               ward extension of x: (z'). z' is the extension of "a"  $\equiv$   
               z' is the imagedward extension of x.
- D 12.2     z is the intention of "a" for z is intention of "a"
- D 13.1     z is an idea for (Ey). z ext 'y' :: (x):: x is an image . x  
               ext 'y' . z ext x: (z'). z' is imagedward extension of x  
               z' ext z: (z''). z'' ext z ) z'' is imagedward extension  
               of x : ) z is imagerward extension of x
- \*D 13.2    z is a conscious idea for z is an idea: (Ex), x is an  
               image. z is imagerward extension of x
- \*D 13.3 = <sup>13.3</sup> z is an unconscious idea for z is an idea : -(Ex), x is an  
               image. z is imagedward extension of x
- D 13.4 = <sup>13.4</sup> z is a concept for z is an idea:: (a): z is intention of  
               "a" . ) . (Ex). z = x
- D 13.41    z is a conscious concept for z is a concept : (Ex). x is an  
               image. z is imagerward extension of x.

- D 13.42 z is an unconscious concept for z is a concept : -(Ex). x is an image, z is imagerward extension of x.
- D 14.1 z is a thought for z is an idea: (a). z is intention of "a". (Ep).  $a \equiv p$
- \*D 14.2 z is a conscious thought for z is a thought : (Ex). x is an image. z is imagerward extension of x.
- \*D 14.3 = <sup>14.3</sup> z is an unconscious thought for z is a thought : -(Ex). x is an image. z is imagerward extension of x
- \*D 15.1 y is conscious of x for x is an image . x ext "y" . V. (Ex') . x' is an image. x is the imagedward extension of x'. x' ext "y"
- D 15.2 y is a conscious subject for y is a conscious organism for y is conscious of something for (Ex). y is conscious of x.
- D 15.3 x is an object of consciousness for someone is conscious of x for (Ey). y is conscious of x
- D 15.4 x is conscious for x is a conscious subject V x is an object of consciousness
- \*D 16.1 x is thinking for x thinks for (Ey). y is an idea . y ext "x"
- D 16.2 x is thinking that p for x thinks that p for (Ey). y is intention of "p" . y ext "x"
- D 16.3 x is thinking about y for x thinks about y for (EF, z). z is intention of "Fy". z ext "x"
- D 16.41 x gives attention to y for x thinks about y
- D 16.42 the attention for gives attention to ... trait
- D 17.1 "p" expresses the idea that p for "p" expresses somebody's idea that p for (Ex, y). x is intention of "p". x ext "y"
- D 17.2 "x" designates, expresses, connotes, corresponds with y's idea of x for (Ez). z is intention of "x". z ext "y"
- \*D 18.1 "x" = "y" for (z), z ext "x" = z ext "y" *Pronounced "eks equals*
- \*D 18.2 x = y for (F). Fx  $\equiv$  Fy *extensionally*
- \*D 19.1 "x" = "the F trait" for (y). Fy  $\equiv$  x ext "y": (z). *wly*
- D 19.11 the trait of Fing for the F<sub>A</sub> trait *Pronounced "x equals predicationly y"*

- \*D 19.2  $x \equiv$  the F trait for ( $F'$ ).  $F'x \equiv F'$  the F trait
- \*D 19.3 G the F trait for ( $Ex$ ).  $Fx$ .  $x =$  the F trait
- \*D 19.4  $x$  has the  $F_A$  trait for  $x$  has the  $F_A$  characteristic for  
 $x$  has the  $F_A$  property for  $x$  has the  $F_A$  quality for  
 $x$  has the  $F_A$  attribute for  $x$  has the trait of  $Fing$  for  
... for  $Fx$
- \*D 20.1 " $x$ " = "the fact that p" for ( $y$ ).  $y$  ext " $x$ "  $\equiv$   $y$  ext "p"
- \*D 20.2  $x \equiv$  the fact that p for ( $F$ ).  $Fx \equiv F$  the fact that p
- \*D 20.3  $F$  the fact that p for ( $Ex$ ).  $Fx$ .  $x =$  the fact that p
- \*D 21.1 " $x$ " = "the thought that p" for ( $y$ ).  $y$  ext " $x$ "  $\equiv$   $y$  is intention of "p"
- \*D 21.2  $x \equiv$  the thought that p for ( $F$ ).  $Fx \equiv$  the thought that p
- \*D 21.3  $F$  the thought that p for ( $Ex$ ).  $Fx$ .  $x =$  the thought that p
- D 21.4 The idea that for the thought that
- D 21.51 the thought about  $x$ , that  $Fx$ , for the thought that  $Fx$
- D 21.52 the thought about every  $x$ , that  $Fx$  for the thought that ( $x$ ).  $Fx$
- D 21.53 the thought about some  $x$  or some  $x$ 's that  
 $Fx$  for the thought that ( $Ex$ ).  $Fx$
- \*D 22.1 " $x$ " = "the concept of y" for ( $z$ ).  $z$  ext " $x$ "  $\equiv$   $z$  is intention of "y"
- \*D 22.2  $x \equiv$  the concept of y for ( $F$ ).  $Fx \equiv$  the concept of y
- \*D 22.3  $F$  the concept of y for ( $Fx$ ).  $Fx$ .  $x \equiv$  the concept of y
- D 22.4 the idea of for the conception of for the concept of
- D 22.5  $x$ 's idea for ( $Ey$ ). y is an idea.  $y$  ext " $x$ "
- D 23.1 the fact of  $x$ 's  $Fing$  for the fact that  $Fx$
- D 23.2 the fact of every  $x$ 's  $Fing$  for the fact that ( $x$ ).  $Fx$
- D 23.3 the fact of some  $x$ 's  $Fing$  for the fact that ( $Ex$ ).  $Fx$
- D 24.1 the unit, a, for a
- D 24.2 the thing,  $x$ , for x
- \*D 25.1 " $x$ " = "the  $F_A$  class" for ( $y, z$ ):  $Fy$ .  $z$  ext "y". ) .  $z$  ext  
" $x$ ":. ( $z'$ ):  $z'$  ext " $x$ ", ). ( $Ey'$ ,  $z''$ ).  $Fy'$ .  $z''$  ext  
" $y'$ ".  $z''$  ext " $z'$ "

D 25.11 cl for class

\*D 25.2  $x = \text{the } F \text{-} \wedge \text{cl for } (F')$ .  $F'x \equiv F'$  the  $F \text{-} \wedge \text{cl}$

\*D 25.3 G the  $F \text{-} \wedge \text{cl}$  for (Ex).  $x = \text{the } F \text{-} \wedge \text{cl} . Gx$

\*D 25.4  $x \in \text{the } F \text{-} \wedge \text{cl}$  for  $x$  is a member of the  $F \text{-} \wedge \text{cl}$  for  $Fx$

\*D 26.1  $F \gg G$  for (a).  $Fa \equiv Ga$

*pronounced "F*

\*D 26.2 the  $F \text{-} \wedge \text{cl} \gg \text{the } G \text{-} \wedge \text{cl}$  for (x).  $Fx \equiv Gx$  equals argument

D 27.1 the  $F \text{-} \wedge \text{cl} + \text{the } G \text{-} \wedge \text{cl}$  for the  $F \text{-} \wedge \text{V } G \text{-} \wedge \text{cl}$  ally  $G$ ", "the

...

...

D 28.1 the 1  $x$   $Fx$  for the one  $x$  such that  $Fx$  for (Ex):  $Fx:(y)$ .  
 $Fy \equiv y \equiv x$

D 28.2 the  $n x^i$ 's  $Fx$  for the  $n x^i$ 's each of which is such that  $Fx$  for  
 $(Ex_1, x_2, x_3, \dots, x_n) ::$

$-(x_1 = x_2), -(x_1 = x_3), \dots, -(x_1 = x_n) .$

$-(x_2 = x_3), \dots, -(x_2 = x_n), \dots, -(x_{n-1} = x_n) .$

$Fx_1 . Fx_2 . Fx_3 . \dots . Fx_n ::$

$(y): Fy \equiv . y = x_1 \vee y = x_2 \vee y = x_3 \vee \dots \vee y = x_n$

D 28.3 the  $F \text{-} \wedge \text{alone cl}$  for the unit cl, the  $F \text{-} \wedge \text{alone cl}$  for  
the one-membered  $F \text{-} \wedge \text{cl}$  for the the 1  $\wedge F \text{-} \wedge \text{cl}$

D 28.4 the two-or-more-membered  $F \text{-} \wedge \text{cl}$  for the many membered  $F \text{-} \wedge \text{cl}$   
for the several membered  $F \text{-} \wedge \text{cl}$  for the n-membered  $F \text{-} \wedge \text{cl}$   
for the the  $n \wedge$ 's  $F \text{-} \wedge \text{cl}$

D 28.5 the null  $F \text{-} \wedge \text{cl}$  for the memberless  $F \text{-} \wedge \text{cl}$  for the null cl,  
the  $F \text{-} \wedge \text{cl}$  for the memberless cl, the  $F \text{-} \wedge \text{cl}$  for the  $F \text{-} \wedge \text{cl}$ ,  
which is null, for the  $F \text{-} \wedge \text{cl}$ , which is memberless  
for ... for the  $F \text{-} \wedge \cdot \equiv . -( \wedge = \wedge ) \text{ cl}$

\*D 29.1  $x$  is  $y$  for (EF). "y" = "the F trait".  $Fx$

\*D 29.2 an  $x$  is  $y$  for (Ez).  $z$  is  $y$

D 29.21 a for an

\*D 29.3  $x$  is a  $y$  for (EF). "y" = "the  $n \wedge$ 's  $F \text{-} \wedge \text{cl}$ ".  $Fx$

\*D 29.4 an  $x$  is a  $y$  for (z) :  $z$  is an  $x$  )  $z$  is a  $y$ :  $-(z \text{ is a } y) z \text{ is}$   
an  $x$  ) :  $V_z (z')$ .  $z'$  is an  $x \equiv z'$  is a  $y$ .  $V_z (Ez')$ .  $z''$  is  
an  $x$  .  $z''$  is a  $y$

\*D 30.1 the class of units which are  $y$  for the class of  $y$  units  
for the  $\wedge$  is  $y$  class

- \*D 30.2 the class of units which are ys for the class of ys for  
the y class for the  $\lambda$  is a y class.
- D 30.21 who/which for who for which
- \*D 30.3 the class of xs who/which are y for the class of y xs for  
the  $\lambda$  is y.  $\lambda$  is an x cl
- \*D 30.4 the class of xs who/which are ys for the class of ys  
who/which are xs for the  $\lambda$  is an x.  $\lambda$  is a y cl
- \*D 30.5 the class of xs who/which FF for the class of Fing xs for  
the class of xs who/which are Fing xs for the  $\lambda$  is an x.  
 $\lambda$  e the n-membered F cl cl
- \*\*\*  
...  
..
- \*D 31.1 x exists for x is real for it is false that x is imaginary  
for ( $Ey$ ). y ext "x"
- D 31.2 x exists in thought for x exists in mind for x exists : x is  
an idea V x is an image
- D 31.3 x exists in imagination for x exists , x is an image
- D 31.4 x exists in space for x exists . -(x is an image).  
-(x is an idea).
- D 31.41 x and y overlap in space for x exists in space,  
y exists in space. x is a part of y
- D 31.42 x and y are distinct in space for x exists in space .  
y exists in space : -( $Ez$ ). z exists in space.  
z ext "x".  
z ext "y".
- D 31.43 x and y are adjacent to each other in space for x and y  
touch each other in space for ( $Ez$ ):. z exists in space.  
x and z overlap in space.  
y and z overlap in space:.  
( $z'$ ): z' and z overlap in space .),  
z' and x overlap in space V  
z' and y overlap in space
- D 31.44 x and y are remote from each other in space for  
x exists in space, y exists in space. -(x and y are  
adjacent to each other in space)
- D 32.1 x is a feeling for x is an emotion V x is a sensation for ?

PP 1        (z, y, x): z ext "y". y ext "x" . ) . z ext "x"  
PP 2        (y) : (Ez). z ext "y" . ) . y ext "y"  
PP 3        (y) : (Ex) . y ext "x" . ) . y ext "y"  
PP 4        (x, F) (Ey) : Fx ≡ y ext "x":  
              (z) . z ext "y") z = y  
PP 5        x = y ) "x" = "y"  
PP 6        the F<sub>A</sub> cl < the G<sub>A</sub> cl ) "the F<sub>A</sub> cl" ≡ "the G<sub>A</sub> cl"  
PP 7        (p): p. ≡ . (Ex). x ext "p"  
T ...  
...  
...

John A. Abbott

May 11, 1954

D 25-1  
 There are  
 living in  
 form,  
 Tentative  
 in content

- In 1 "the unconscious" = "the <sub>A</sub> is an idea, V.: <sub>A</sub> is an idea:  
     -(Ex). x is an image . <sub>A</sub> is imagerward extension of x  
     class"
- In 2 "x's unconscious" = "the <sub>A</sub> ext "x" ::. <sub>A</sub> is an idea, V.:  
     <sub>A</sub> is an idea: -(Ex'). x' is an image. <sub>A</sub> is imagerward  
     extension of x' class"
- In 3 "the conscious mind" = "the <sub>A</sub> is an image class"
- In 4 "the mind" = "the <sub>A</sub> is an idea V <sub>A</sub> is an image class"
- In 5 "x's mind" = "the <sub>A</sub> is an idea V <sub>A</sub> is an image: <sub>A</sub> ext "x"  
     class"
- In 6 "consciousness" = "the <sub>A</sub> is conscious trait or the <sub>A</sub> is  
     conscious class"
- In 7 unconsciousness for the <sub>A</sub> is unconscious trait
- In 8 memory for the <sub>A</sub> remembers trait
- In 9 x's memory for the l y y = the <sub>A</sub> remembers trait , y ext "x" <sub>A</sub> trait
- In 10 "memory" = "the <sub>A</sub> is a memory class"
- In 11 "x's memory" = "the <sub>A</sub> is a memory of x's class"
- In 12 narcissism for the <sub>A</sub> is self-referently preoccupied trait
- In 13 "x's id" = "the <sub>A</sub> is an act of x's or a tendency of x's to  
     act for immediate self-gratification class"
- In 14 "x's ego" = "the <sub>A</sub> is an activity of x's which reconciles  
     x's conflicting inclinations and/or betters x's status  
     class"
- In 15 "x's superego" = "the <sub>A</sub> is a self criticizing activity of  
     x's class"
- In 16 "instinct" = "the <sub>A</sub> is the psychical representative of an  
     endosomatic, continuously flowing source of stimulation  
     class". (Cf. Freud's "Three Essays on the Theory of  
     Sexuality", I, (5).)
- In 17 energy for the <sub>A</sub> moves. V. if <sub>A</sub> were freed, then <sub>A</sub> would  
     move trait
- In 18 kinetic energy for the <sub>A</sub> moves trait
- In 19 potential energy for the if <sub>A</sub> were freed, then <sub>A</sub> would move  
     trait
- In 20 weight for the <sub>A</sub> weighs something trait
- In 21 mass for the if <sub>A</sub> were in a vacuum on a scale-pan on the  
     earth, then <sub>A</sub> would weigh something trait
- In 22 heat for the <sub>A</sub> is hot trait

L . . . file  
JOHN A. ABBOTT, M. D.  
BEAVER POND ROAD  
LINCOLN, MASS.  
LINCOLN 6-0359

Answered Tu 18 May 54

Dear Warren:-

Many thanks

for your more than  
generous answers to  
my letter. In my  
turn I have studied

your exuberant poem.

Its allusive complexity  
entails a complex artistry

2.

JOHN A. SABO, D.D.  
AVAKER FOUND ROAD  
LINCOLN, MASS.  
TINCOLN 00028

It is very kind of you to answer on interest in what I presented; & I will send you — enclose herewith, in fact, — a set of mimeographed sheets which I distributed to display the formal background for what I had to say. It need not take much of your time.

3.

JOHN A. ABBOTT, M. D.  
BEAVER POND ROAD  
LINCOLN, MASS.  
LINCOLN 6-0359

time because a  
glance will show you  
what a surprising  
number of terms can  
be defined in terms  
of my primitives. If  
the definitions stand, the  
fact is noteworthy & has  
some significance which  
is not clear to me.

4.

JOHN A. BRADDOCK, M.D.  
REVERE ROAD  
REVERE, MASS.  
LINCOR 8-3039

I have ~~not~~ included  
the theorems —  
just "T" to show  
where they would  
occur. The primitive

in notation " $\hat{2}$ " is ex-  
tension of ... need not

be explained for the

brief critical appraisal

which I have outlined

above. It would be

eager to explain it to

JOHN A. ABBOTT, M. D.  
BEAVER POND ROAD  
LINCOLN, MASS.  
LINCOLN 6-0359

On the Boston &  
Dwelling between  
Lincoln & Boston

The 27 Aug 54

Dear Warren:-

Your poem

gives me present for  
heading on the metrical  
composition which presented  
itself to me on the  
morning after our meeting  
a week ago / + which  
I have polished as far  
as I can before presenting it

to W. S. Price.

A spring, high up on cliffs entwined  
 By wild grapes, where green domes + spears  
 Of grass clothe granite else uncouth,  
 Feeds verdure as his generous mind  
 Feeds, in the antiquity of years,  
 The lively lineaments of youth.

It occurred as a grateful  
 acknowledgement of the possibility  
 that I might review my  
 essay with (might defend  
 my thesis against?) you +  
 Walter Pitt. I hope that it  
 does not come as of unwell-  
 welcome reminder! I am

2.

JOHN A. ABBOTT, M. D.  
BEAVER POND ROAD  
LINCOLN, MASS.  
LINCOLN 6-0359

still eager for what I would  
find on extremely in-  
structive opportunity. In-  
cidentally I have used the  
interval to correct the  
detail of the idea expressed  
by the relationship designated  
by " ... is extension of ...".

Sincerely  
John

TEL. LAFAYETTE 3-8200  
EXTENSION 382

Dilly

JOHN A. ABBOTT, M.D.  
MASSACHUSETTS GENERAL HOSPITAL  
BOSTON 14, MASSACHUSETTS

Dear Dr. Grayling  
2 Sept 58

Fri 3 Sep '58

Dear Warren: - Where is  
the reprint that you  
have promised me?

I have kept an eye  
out for your daughter  
but our refs seem net

cross. I have  
decided that Russell's  
class of more classes  
which are not members  
of themselves is simply  
identical with the  
class of classes: that is  
putentious of me unless  
I can find good  
company.

Sincerely yours, John.

G.M. MITCHELL  
MICHIGAN STATE UNIVERSITY  
DEPARTMENT OF MATHEMATICS

Sir

JOHN A. ABBOTT, M.D.  
MASSACHUSETTS GENERAL HOSPITAL  
BOSTON 14, MASSACHUSETTS

TEL. LAFAYETTE 3-8200  
EXTENSION 382  
#381

January 27, 1958

Dr. Warren S. McCulloch  
1 Shady Hill Square  
Cambridge, Massachusetts

Dear Warren:

Your reprints came in good time.

I have studied "Three of Don Newman's biological questions" carefully and I think with satisfactory understanding through p. 134, paragraph 3.

This study alone has sufficed for a rich harvest of student's questions which I should like to ask you. I would like more leisure than is provided by a luncheon period but probably a luncheon period is best if you will let me go out to M I T and join you for lunch. In that way my trespass on your time will be minimal.

Beginning at p. 134, paragraph 4 (with Fig. XVI -4) there is assumed a knowledge of the science of probability; and I do not have this knowledge. No doubt if I had it, I would understand much that now seems obscure or contradictory.

Up to this point, the notational device is of an exquisite elegance and the demonstration of effective performances despite variations of thresholds is clear and impressive.

The evidence after this, that personal organization minimizes errors, is evidence that I can only grasp in a fragmentary and impressionistic way.

Don't answer this letter. Instead let it serve as a basis for your answer when I telephone to your laboratory asking for a date when I can go over for lunch.

The second reprint is on my dressing table. It is more along the line which is of practical applicability in psychotherapy. I will turn next to it. And thank you for both.

Sincerely yours,

John A. Abbott, M. D.

JAA:g

TEL. LAFAYETTE 3-8200  
EXTENSION 382

JOHN A. ABBOTT, M.D.  
MASSACHUSETTS GENERAL HOSPITAL  
BOSTON 14, MASSACHUSETTS

file

Sept 24th 1958

Dear Warren:-

Very thanks for  
your reprint. It seems  
a long time since an  
early day in spring but  
was unversed to me  
by my old friend your lab

at our lunch together.

I joins me in thanking

you for your generous

acknowledgment of

my contribution.

You reward me for a

pleasant task.

On the beach at Atlantic

City Paul McLean

espouse with pleasure

of having seen you.

JOHN A. ABBOTT, M.D.

MASSACHUSETTS GENERAL HOSPITAL  
BOSTON 14, MASSACHUSETTS

file

TEL. LAFAYETTE 3-8200  
EXTENSION 381

I will need to repeat  
Dear Warren:

— thank you —  
for your quest of the  
place where fancy is  
knew. I have followed  
you all your journey  
with anxiety — though  
wishing no real visit  
sometimes, like the  
three readers of  
"Agathe Tyche" in your  
audience, I have had

2

JOHN A. ABBOTT, M.D.

GENERAL HOSPITAL  
AT PORTOBELLO

DOOR-5 LARAYA 100-000  
1900-1901

to train my hand or an  
admission that I did  
not understand.

How nice it you to  
name me among  
the very choice company  
of your other friends.

Oliver Selfridge

gave me a copy of  
Lippmann's Intellectual Life  
his paper on Pandemonium.

It raised a question  
which seemed to show  
whether abysmal ignorance or  
both exist & are intermixed

①

it's time for us to leave  
you take care of our  
things it's good to  
see you I love you  
Dad I must say so  
I'm always looking for  
new opportunities I think  
it's a good idea for us to go  
to see more and more  
of life if we can't  
travel the world I hope  
we'll still have fun tomorrow?

4. 8

in this I have the very best  
and kindest regards

and a very best turn,  
Yours sincerely

John Pitt

As always my best to  
you & your family

Terry between Wall & Pitt

below I want a no.

or more flowers left

to 1000 the best of

dark pink with white

& dry soil for plant

2nd day

file

JOHN A. ABBOTT, M.D.  
MASSACHUSETTS GENERAL HOSPITAL  
BOSTON 14, MASSACHUSETTS

TEL. LAFAYETTE 3-8200  
EXTENSION 282-371

Wed 27 May 59

Dear Warren:-

It was a pleasure  
to learn from Oliver Selfridge  
that he had received a

copy of your paper in *Fancy*.

It is a pleasure with all (and  
my further thanks to you) that

as a result he has invited

me to the Harvard lab

to see the actual hardware

as he calls it with that

inverted intellectual snobbery  
of the physicist which ~~actually~~

306

JOHN A. STOTT, M.D.

MASSACHUSETTS GENERAL HOSPITAL

BOSTON MASSACHUSETTS

TELEGRAMS 2-2200  
EXCHANGE 308-1878

facilitates communication.

pp 60 in your paper you  
spoke of the bomb. In

my slightly flippant

answer to your paper, I  
did not mention this. No

doubt my participation in

the common reacistic re-

pressive attitude. I am

as strongly & seriously

bomb-conscious.

Sincerely

Tom.

COPY OF DR. ABBOTT'S LONGHAND NOTE TO

MON MARCH 14, '60

Mr. Karl Menger  
Illinois Institute of Technology  
Technology Center  
Chicago 16, Illinois

Dear Mr. Menger:

I have been delighted by your account of Gulliver  
in the hand without and am grateful alike to you and Warren.

I plan to write at greater length after a further study  
of your essay and a formulation of some other reforms which have  
occupied me but which I have not yet formulated in such a way  
that I could present them to anyone else for informed appraisal.

Interestingly enough I have been planning to take  
them to Warren.

Now, if I have your permission, I may show them to  
you too.

Sincerely,

John A. Abbott, M. D.

Dear Warren -  
Thanks a lot  
for suggesting we  
try to get  
Prof. Dr. Menger and Mr.  
Ferrante to  
give us an  
opportunity  
to meet  
you all  
again.

MASSACHUSETTS SOCIETY  
for  
RESEARCH IN PSYCHIATRY, Inc.

**The placement and movement of hallucinatory objects:  
A contribution to the understanding of psychotic mourning.**

Leston L. Havens, M.D.  
and  
Varda Peller-Ganz, M.D.

Discussion by Arnold Modell, M.D.

*Collation — Intermission*

**Psychological terms as names for imaginary things akin  
to classes.**

John A. Abbott, M.D.

Discussion by Gardner C. Quarton, M.D.

**BOSTON MEDICAL LIBRARY**

**Sprague Hall**

**8 The Fenway  
Boston, Massachusetts**

**TUESDAY EVENING, DECEMBER 13, 1960 at 8:30 p.m.**

*Summary of paper on*

## Psychological Terms as Names for Imaginary Things Akin to Classes

We classify things or, in other words, make classes of things unconsciously and spontaneously as well as consciously and in accordance with what we have been taught.

By our unconscious classifying we make things, perhaps real, that can be called, "classes-as-extensionally-identical-with-their-members" or simply, "classes"; and from these we make, by our primary process, corresponding imaginary things which can be called, "classes-as-extensionally-distinct-from-their-members".

Many psychological terms (for example, "mind", "the unconscious", "id", "ego", "superego", "conscience", "character") are names for classes-as-extensionally-distinct-from-their members.

Many of the traits of these classes-as-extensionally-distinct-from-their-members are displacements which involve their members (thus, for example, the character is said to be strong, conscience to have a voice, the ego to control the passions, the id to act entirely in accordance with the pleasure principle); and the classes-as-extensionally-distinct-from-their-members are themselves the substitute-formations of condensation with substitute formation.

John A. Abbott, M. D.

Tu 29 Nov '60

## Psychological Terms as Names for Imaginary Things Akin to Classes

We classify things or, in other words, make classes of things unconsciously and spontaneously as well as consciously and in accordance with what we have been taught.

By our unconscious classifying we make things, perhaps real, that can be called, "classes-as-extensionally-identical-with-their-members" or simply, "classes"; and from these we make, by our primary process, corresponding imaginary things which can be called, "classes-as-extensionally-distinct-from-their-members".

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John A. Abbott, M. D.  
Tu 29 Nov '60

*Name  
Sila  
Zengen and me*

TEL. LAFAYETTE 3-8200  
EXTENSION 381

JOHN A. ABBOTT, M.D.  
MASSACHUSETTS GENERAL HOSPITAL  
BOSTON 14, MASSACHUSETTS

10th & Dec '60

Dear Warren:-

You have been so sympathetic to my interest in these matters that I am sending you the enclosures. They go as a token of appreciation, not as an intended encroachment.

Д.М.ТРОГАРДИНОВ  
МАССАУСКИЙ ГЕНЕРАЛ-КОММЕНДЕР  
БОЛЬШОЙ МОСКОВСКИЙ ГЕНЕРАЛ-КОММЕНДЕР

5

your travel

Very sincerely,

Best regards

and good luck

December 15, 1960

John A. Abbott, M. D.  
Massachusetts General Hospital  
Boston 14, Mass.

Dear John:

A long standing dinner engagement including an evening of music by our accomplished hostess prevented me from hearing you. I trust there is a manuscript, and I hope you will be so kind as to let me have a look at it.

I would I had been there, if only to cry "hear, hear" by way of discussion.

Sorrowfully yours,

Dr. Warren S. McCulloch

TEL. LAFAYETTE 3-8200  
EXTENSION 381

Jils

JOHN A. ABBOTT, M.D.  
MASSACHUSETTS GENERAL HOSPITAL  
BOSTON 14, MASSACHUSETTS

Wed 21 Dec 68

Dear Warren:

What a very thoughtful letter. Thank you.

I will not burden you with the ms. which is a mess. But someday I have been send you a reprint. Then

D.M. TROBES A MHD  
BOSTON CHARTERED  
GENERAL INSURANCE  
COMPANY

paper goes 1<sup>st</sup> to  
John Wilbur's "American  
Imago." And in the  
meanwhile, there is a  
summary which I may  
not have sent you &  
which will be less  
burdensome & should ex-  
plain the simple but im-  
portant commencing idea.  
Sincerely  
R.W.

TEL. LAFAYETTE 3-6200  
EXTENSION 381

✓  
JULY

JOHN A. ABBOTT, M.D.  
MASSACHUSETTS GENERAL HOSPITAL  
BOSTON 14, MASSACHUSETTS

Tue 2 Feb 61

Dear Warren:-

I am clearing  
Wed 8 Feb 61 in the afternoon  
so as to attend the talk  
by — damn my lacking  
memory for names. If  
when  
you fix the hour let me

I will show on Tues the 7th

To ask. Thank you

for thinking of me

Sincerely,

Reu.

—G.M. TTOBEA A WHOM  
LATERSON, LARSEN & WILSON,  
ATTORNEYS FOR THE DEFENDANT.

Dear Warren.— I thought this carbon  
would convey my appreciation of  
your invitation to hear Menger talk.

Sincerely, Toln

February 13, 1961

P.S. I have been taking hasty sketches of  
your 3 results but have not stranded them

Dr. Karl Menger  
Illinois Institute of Technology  
Technology Center  
Chicago 16, Illinois

Dear Professor Menger:

It was a great disappointment to have to leave  
at 5:00 o'clock. It was a great pleasure to be able to stay until 5:00.

After years of concern so solitary as to make me feel helpless and suspect myself of eccentricity, it was very gratifying to be convinced by your talk that I am really a follower in good company.

You named and formulated corrections for problems that have vexed me.

For a long time, now, whenever I have heard talk of improving scientific education, I have thought to myself follow-of doing so by dealing first with the very self-same snarled ambiguities that you have been combing out.

Probably the best way to further my education and to avoid wasteful encroachment on your time, is to complete the formulations of my own solutions and then offer those formulations to you and Warren.

Precise formulations should make errors quickly apparent.

Should you take time to read and correct the formulations, I would then have the valuable chance of learning from your corrections.

Reciprocally you would have a chance to examine one more sample of the intellectual problems which the present-day re-teaching of mathematics presents to a thoughtful student of, ~~never~~ presumably, average intelligence.

Thanks again for a most stimulating talk on Wednesday the 8th.

Sincerely,

John A. Abbott, M. D.

Toln

JAA:g

Hold

JOHN A. ABBOTT, M. D.  
CHARLES RIVER PARK  
ZERO EMERSON PLACE  
BOSTON, MASSACHUSETTS 02114

TEL.: AREA CODE 617  
523-1215  
IF NO ANSWER  
267-7850

Fri 26 II 65

Dear Warren: - Many thanks  
for your call this evening.  
It was a pleasure to have you  
visit our suburb you had in  
mind. Such a guest of  
honor, if I put up with  
you would be obliged  
bored by my Harvey  
lecturing on him -  
the geometry of his spherical (?)  
planets, "symmetry", the physics  
of the effectively remote

reference electrode in

О. М. ПТОРОВА А. ИНОЛ  
ЖУРН. РЕВЮ СЕРИЯ ГИГИЕНИЧЕСКАЯ  
ВОДЫ И МОЛОЧНЫХ ПРОДУКТОВ  
АЛГО ВІДЕОГІДРАГРАМ ПОТВОР

neurological studies (what  
is best)

I have worked out could be

quickly answered by an

informed & interested

student of the fundamental

physicist: but when he

is both unprepared to do it  
(and one?), the geometry

of lines of force in 3 dimensions

between "point"

between equal charges of

opposite polarities (are

approximate geometrical

laws valid?), the con-

clusions drawn with

regards to arithmetic

if we assume & maintain

similar conditions for what is

3. It

referentially the distributions  
and of ~~of~~ <sup>part</sup> ~~book~~ B.

between numbers, names  
~~names~~ ~~no~~ ~~for~~ ~~for~~

for numbers + alphabetical  
order into ~~order~~ ~~book~~ B

device for representing  
noted and sorted by each  
such names + the  
order ~~order~~ ~~of~~ ~~book~~ B  
distribution between

members + members of

things ~~which was~~ ~~was~~ sequences that

would follow ~~the~~ small  
~~not~~ ~~not~~ book which should be

called "Collection to

(~~calculus~~, Inclusive")

— this would be thoroughly

4.2

bound by my victim's get up  
among bedwarmers - I expect

of him - or no doubt,

I hardly do & will not  
if you need this letter,

for messenger of course

having touched the button

not to never want

& reward the sprung & you

are!

to reward you & the others

more down to earth:

it was nice to hear your  
voice & riding best to

you & H. Roots.

("I am sincerely,

Rum -

Worship & ad gloria dei -

JOHN A. ABBOTT, M.D.  
MASSACHUSETTS GENERAL HOSPITAL  
BOSTON 14, MASSACHUSETTS

TEL. LAFAYETTE 3-8200  
EXTENSION 381

Dear Warren. I am writing to you  
to express my thanks for your kind letter.

I have been looking into my Dotoroga  
file today & I find myself  
very much increased in anxiety  
and concern, which was my  
mother, that I have  
not been properly active  
& effective in doing my  
part to promote the  
project which is dear to you  
& which is no important as

JOHN A. BOBBOTTE  
BOSTON, MASSACHUSETTS

BOSTON, MASSACHUSETTS

to invent every effective  
promotion! Let me know  
if there is someone else  
who might be more effect-  
ive & informed, then I  
would be at  
or place C  
now in regard to  
currently judge that I  
have been & am being  
Dover & I have  
done as frankly as I  
am willing. He has been  
a great disappointment  
me to get word of  
you through Dover -  
he is a shabby boy  
who looked to me as if

P.S. - In other Evening

at a ~~gathering~~ <sup>meeting</sup>, for

Parrots, at the Hart-

well School,

Spotted a woodland

Scene among others

on the wall at the

end, made my way

to it, found it as

in figure close to as

far away, & found it

signed by Stevie

Holland! Peter

tells me that he

Steve & will  
be singing to -  
September 1st at a concert  
Olivier 12th  
Wednesday 1st of Sept  
mark your calendar  
it to know it no  
you you want, love  
no time lost, it is  
so it will bring it in  
know it, you no  
eighth and burgess  
reception, bullet  
and best seat

JOHN A. ABBOTT, M.D.

MASSACHUSETTS GENERAL HOSPITAL

BOSTON 14, MASSACHUSETTS

file

TEL. LAFAYETTE 3-8200  
EXTENSION 382

Wed Jan 16 '52

Dear Warren:-

Now that the  
merry hell of Christmas &  
New Year celebrations are past, I have time to  
express my regrets &  
apologies. If they are in  
order, for not seeing you  
on Dec 27. Diana & I  
had an engagement for  
that evening, so that I  
had to leave for the

5 15

train before you

reached the lab. But

Molly Bragir tells me

that you spent some

time with Bill Chapman

+ with her, so met

from your point of view

the visit to the General

was friendly. I had

wanted to talk about the

philosophical paper by your

colleague which you sent

me so long ago + about

Albertson's books on neurol-

file  
(No Tad Tennis)

JOHN A. ABBOTT, M. D.  
CHARLES RIVER PARK  
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BOSTON, MASSACHUSETTS 02114

TEL.: AREA CODE 617  
523-1215  
IF NO ANSWER  
267-7850

Wed 28 II 68

Dear Warren:-

Bethleen

9:15 P.m. last night  
when I got home &  
10 P.m. I dialed  
864-2155 twice; but  
each time the line  
was busy. My re-  
grets, for I would like  
to have heard your  
voice. Sincerely,  
John.