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THE TECHNE

Life without Labor is a Crime, Labor without Art and the Amenities of Life is Brutality.—Ruskin

MARCH-APRIL, 1928

THE TEACHER

Lord, who am I to teach the way
To little children day by day,
So prone myself to go astray?

I teach them Knowledge, but I know
How faint they flicker and how low
The candles of my knowledge glow.

I teach them POWER to will and do,
But only now to learn anew
My own great weakness through and through.

I teach them LOVE for all mankind
And all God's creatures, but I find
My love comes lagging far behind.

Lord, if their guide I still must be,
Oh, let the little children see
The teacher leaning hard on Thee.

—Leslie Pinckney Hill.

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THE TECHNE

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EDITORIAL COMMITTEE

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The Techne publishes, for the most part, papers on educational subjects, though articles on closely related fields are also used. Part of these papers set forth the results of research; others aim at interpretation of current developments. Though some of the discussions will interest the specialist, it is hoped that in every number there will be something useful for the average teacher.

The Techne is sent free to alumni, teachers, school officials, libraries, and, on request, to any person interested in the progress of education.

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A New Training School

The opening of the new Horace Mann Elementary Training School the first of the year begins a new era in teacher training at Kansas State Teachers College of Pittsburg. Not only were the facilities for teachers increased but also an opportunity was provided for training them under actual public school conditions.

The building was erected by the city of Pittsburg and turned over to the college for training school purposes. The school is equipped and staffed entirely by the state and is under the direct administration of the college, with the co-operation of the city superintendent of schools. It is just across the street from the college campus.

The building is of brick and reinforced concrete fire-proof construction and is trimmed in Carthage limestone. It is well lighted from the south, east, and west. As there is no basement except for the furnace room, all of the children work under hygienic conditions. The roof is of red tile and the building, though plain, presents a very dignified and pleasing appearance.

About two-thirds of the children who attend the training school come from families of former patrons in all parts of the city. About one-third of the pupils come from a district designated as the Horace Mann District in the southern part of the city. The enrollment is 230 or an average of about 33 per grade from the kindergarten through the sixth grade.

The building is constructed on the unit plan. Each unit for grades one to six inclusive consists of a large room approximately 24 feet by 32 feet and two smaller rooms so connected as to facilitate the movement of classes and supervision on the part of the supervising teacher. Each unit is also to have a small glass-enclosed office for private conferences. On the first floor are located the first and second grade units, a large kindergarten room and office, principal's office, work room, opportunity room, combined auditorium and gymnasium, boys' and girls' shower rooms, toilets, and kitchen. On the second floor are the units for grades three to six, a large demonstration room with raised seats, childrens' library, and a teachers' rest room. Each of the large class rooms has a pupils' wardrobe, a teacher's cloak room, and a built-in case for books and supplies. The small classrooms have built-in cases for books, materials, and equipment.

A clinic is used for physical examinations and for the treatment of emergency cases. It will be equipped with first aid cabinet, couch, hospital bed, scales, and other standard equipment.

The demonstration room makes possible the realization of expert teaching by a trained teacher. Raised seats give observing college classes an unobstructed view of the demonstration class and teacher. The room is large enough to avoid over-crowding and to relieve children

of the consciousness that they are being observed. The auditorium may also be used for demonstration purposes, so that it is possible to give two demonstrations simultaneously.

About half of the rooms are fitted with single, movable chair-desks, while the others are equipped with tables and chairs. The purpose of this arrangement is to determine which type of equipment is most satisfactory for schoolroom purposes.

The building provides facilities for twenty student teachers each hour, with no duplications in any room, or a total of 120 per day. Assigning of extra supervising teachers will make it possible to increase this number without impairing the efficiency of the work. The Training School library has its own librarian, its own catalogue, and equipment. The books, carefully selected are adapted to the needs of children from the kindergarten through the first six grades. Teachers planning to teach in the elementary grades are given an opportunity to become acquainted with juvenile literature and to select the best books for their own or their school libraries. A growing collection of mounted pictures is of great value to students and supervising teachers. Visual education material of all kinds will be kept in this room where it will be accessible to both teachers and pupils.

The auditorium-gymnasium is 62 feet by 47 feet, with a stage 28 feet in width. About 400 persons can be seated comfortably. Back of the stage is a combination kitchen and store room where refreshments are prepared for different organization meetings. The auditorium is the center of the social life of the school, including the activities of the Parent-Teachers' Association.

The opportunity room, as the name indicates, provides for children who need individual instruction. It is spacious, well lighted, and is being furnished with the necessary materials and equipment for carrying on individual instruction and correcting any deficiencies.

Dr. H. C. Pryor, head of the Department of Education and Teacher Training, co-operates with the city superintendent of schools, M. M. Rose, in the general supervision of the Horace Mann school. Miss Jane Carroll is the principal in charge.

MENTAL HYGIENE

L. A. Guthridge, Director of Extension, K. S. T. C., Pittsburg, Kan.
Class in Hygiene and Public Health

The word "hygiene" comes from Hygeia, the mythical goddess of health. Hygiene is usually defined as the science of the preservation of health or a system of principles or rules designed for the promotion of health. Therefore we may define mental hygiene as a system of rules or principles designed for the purpose of promoting a healthy functioning of the mind.

In Jelliffe's introduction to White's Principles of Mental Hygiene, he says: "A healthy mind in a healthy body has been the watchword of past civilization, but it is time to modify this and to recognize that this is but one-half of a truth, which in order to be realized, needs to be stated in a larger form which embraces this: a healthy body can only exist as its behavior is influenced and controlled by a healthy mind."

Givler, in his Psychology, tells us that "mental hygiene is really a branch of hygiene of the body as a whole, and since mental activity is carried on at the body's expense, it is essential that there be maintained an abundant margin of energy to make good the loss entailed by an excessive mental activity."

All about us we find plenty of evidence that bodily derangements interfere with the proper functioning of the mind and also that the mental condition has much to do with body functions. I refer to our socially inefficient. The community judges an individual by his conduct. He may think as he pleases and the community will pay but little attention to his thoughts till he gives expression to them, particularly in some action, then and very quickly he attracts attention. Unless his actions follow fairly well defined lines they will be questioned. Conduct has a social value which is based upon its worth to society.

White says: "Conduct is psychological and so it is proper to inquire whether all forms of social inefficiency may not be viewed, and properly so, from the standpoint of mental deficiency. The so-called insane and the various grades of feeble-minded are already viewed in this way, while there is pretty general agreement that approximately fifty per-cent of the criminals and an equal percentage of prostitutes easily fall within such a grouping."

The unfortunate and the failures in life in times past received very little notice other than to keep them out of the way of their more fortunate fellows. Those termed "insane" were credited usually with possessing devils. In more recent times society has endeavored to give the unfortunate good care, making their existence as comfortable as possible.

At the present time through the efforts of some who have been greatly interested in the battles of the failures in life, we are getting a better

understanding of their needs and are endeavoring to solve one of society's important problems, for indeed these failures do present a big problem. One is appalled when he stops to consider the increasingly large number of inmates in the various charitable and correctional institutions in the state of Kansas, to say nothing about the number throughout the United States.

According to the 1926 biennial report of the Kansas charitable institutions there were 6411 inmates in the various institutions during that year. We have no statistics available for the private institutions which care for many patients. The report for the correctional institutions for the same period lists 4035 inmates.

The Federal Census Bureau data for 1922 shows the following: 526 hospitals for mental diseases listed 279,559 patients on Jan. 1, 1922 and 290,457 patients on Dec. 31, 1922; 84 psychopathic wards in general hospitals were caring for 2135 patients on Jan. 1, and on Dec. 31 there were 1842; 136 institutions for feebleminded registered 43,636 for Jan. 1, and 46,734 on Dec. 31; 32 institutions for epileptics show 8823 for Jan. 1, and 9,153 for Dec. 31 of the same year. A careful observer will note that there were more than 14,000 more individuals in these various institutions at the close of the year than there were at the beginning.

Here are some more interesting data concerning the number of patients with mental diseases in the various institutions in the United States from 1880 to 1920:

1880	40,942 patients
1890	74,028 patients
1904	150,151 patients
1910	187,791 patients
1918	223,957 patients
1920	320,680 patients

You will note the rapid increase in the number of patients from decade to decade as shown by the above figures which are taken from James Lincoln McCartney's figures for the mentally sick.

During the same period we find that the population of United States has shifted as follows: In 1880, 71.4 per cent of our population were rural against 28.6 per cent urban; in 1920 the rural population had decreased to 48.6 per cent and the urban population had increased to 51.4 per cent. This big change took place in 40 years. Perhaps we would not be very far wrong if we attributed some of the large increase in the number of mentally ill patients during this 40 year period to readjustment necessary in changing from rural to urban life.

Mr. McCartney tells us that of the more than 20,000 mentally sick institutionalized during the year 1920, 38.2 per cent were single, and 44 per cent were married, 14 per cent were widowed, and 3.8 per cent were divorced or separated.

Very few reach the stage where they are designated as insane before the 20th year. Of all the inmates 52 per cent range from 20 to 30 years, 21 per cent range from 30 to 40 years, 14 per cent range from 40 to 50 years, and 12 per cent are over 50 years of age. The figures for the mentally ill seem to correspond quite generally with figures for those physically ill—that is, there are certain periods in life when one is more susceptible.

During recent years psychologists have been endeavoring through tests of various kinds to establish a standard for measuring human intelligence. These standards indicate that we have a considerable number, about 40 per cent of average intelligence, 20 per cent above the average, with 10 per cent of superior intelligence, a group of 20 per cent below the average intelligence and 10 per cent representing those of very low mentality.

It is thought that a large number of the recruits for our various institutions come from those persons who constitute the group who are below the average in intelligence. The modern tendency is to locate the mentally sick as soon as possible, properly diagnose the case and use the proverbial ounce of prevention in preference to the pound of cure. This method is quite different to methods used in former times. White has the following to say about the treatment of those who have beeen mentally deficient: "The latter part of the 18th century and the fore part of the 19th century, while the insane person was often not specifically thought to be possessed of the devil, literally speaking, yet he was treated very much as if he were. The mentally diseased were considered just as they had been under the influence of the superstition, to be a being apart from others: "craziness" was a condition which was not capable of being understood, and which had the practical effect of isolating and ostracizing those who suffered from it." Along with this attitude, born of ignorance, there naturally went the twin brother of ignorance, fear, for wherever there is lack of understanding, wherever phenomena are enveloped in mystery, wherever the source of events are unknown, there we always find fear. Ignorance and fear then have been the great obstacles that have had to be overcome in dealing with the problems which have been overcome only partly and only here and there, because they are defects within ourselves, and therefore, it is only with extreme difficulty that we are able to appreciate them and even then not at their full value. The patients themselves, however, through the ages, have been crying out to be understood and it is only in the most recent times, since the mental mechanisms have been worked out, that we have been able to turn an understanding ear to what they had to say.

In the midst of all the horror and the degradation with which the care of the insane has been surrounded as a result of ignorance and fear there have always stood forth commanding personalities who have preached the gospel of love and have endeavored by the force of their

noble example to introduce a spirit of kindliness and humanitarianism into the work.

Such men, for example, were Celsus, who nearly two thousand years ago advocated quiet walks in beautiful gardens, music, reading, meditation, in the treatment of mental disease; Pinel (1745-1826), who in the latter part of the 18th century, struck the chains from the unfortunate inmates of the Paris hospitals; Reil (1759-1813), whose work on the treatment of mental diseases might be read with profit today, and later in our own times and within comparatively recent years, Dorothy L. Dix (1802-1887), whose name is intimately connected with so many hospitals for the care of this class of patients in the United States, and later still, Beers, through whose activities the Nationel Committee for Mental Hygiene came into existence.

The Mental Hygiene movement started some eighteen or twenty years ago. The idea spread rapidly and today most of the states if not all of them havemental hygiene societies. Also the movement is spreading into foreign countries. At the present time twenty-one foreign countries have joined the International Committee Movement. The object of the Hygiene Society is to work for the conservation of mental health; to help prevent nervous and mental disorders and mental defect; to help raise the standard of care and treatment for those suffering from any of these disorders; to assure and disseminate reliable information on these and related subjects.

You will readily see that the Mental Hygiene organizations are endeavoring to educate the public concerning the needs of our numerous mentally unfit both in and out of the institutions.

In one place it was pointed out that ignorance and fear are the prinpal things standing in the way of progress. Dr. Karl A Menninger, president of the Kansas Mental Hygiene Society, which is a branch of the National Society, puts it this way: "Ignorance and negligence alone prevent an extension of the principles of mental hygiene to the lives of every community and every individual. Ignorance is the greater foe. Thus, for example, did you know that there exists no such disease as insanity?

"Do you know that any one is capable of developing a mental sickness?

"Do you know that nervousness has nothing to do with nerves?

"Do you know the difference between an idiot and an imbecile?

"Do you know the cause of any form of the so-called insanity?

"The chances are very much against your knowing the answer to any of these questions! Yet most people are more amused by this ignorance than ashamed of it! From this follows our golden rule for attaining,

preserving, and promoting mental health, individual and community. The step toward mental health is the dissemination of information about mental disease. I would remind you that until we learned how typhoid fever was communicated, we could not attain our present conception of water and sewage hygiene. Until the public, and especially the public's leaders know something definite about mental disease, we can not successfully combat the increasing tide of mental sickness by a constructive program of mental health."

Psychiatry is a branch of medicine which concerns itself with abnormal minds. Abnormal minds are minds that perceive wrongly, think wrongly, feel wrongly, and behave wrongly. It is the wrong behavior that brings most cases of mental sickness to the psychiatrist. It is likewise wrong behavior that brings truants to the desk, prisoners to the bar, and malefactors to the scaffold. Wrong behavior or abnormal conduct is the generic title to which belongs most of the problems of the social workers, the minister, the lawyer and the doctor.

Such young men as Nathan Leopold and Richard Loeb, Edward Hickman and Wilby Hunt, are shocking examples of minds that are a menace to society. Then we can come closer home! What is wrong with the mind of the young man now languishing in jail because he felt inclined to write checks on other men's accounts and appropriate another man's suit of clothes, or what of the mind of the young lady student who gave checks over and over to pay bills, when pressed, without having funds in the bank, each time spinning a long string of yarns in explaining why the funds were not in the bank at the particular time the checks were presented. We know that according to th standards of society at the present time, such minds are not functioning in a healthy way to say the least.

LaRue, in his Psychology for Teachers, says, that "a healthy mind is one capable of self-management; a mind able to adapt itself to its environment. A sound mind seems to obey the following rules:

1. Look at life in the large.
2. Pursue a great purpose.
3. Keep its poise.
4. Form good mental habits."

He says further that "we need more and more a psychology which will occupy itself with character building."

The foundation of character must be laid early in life. It is well for all concerned with the direction and care of children to be versed in modern psychology.

The type of mind that develops into the criminal and the type that ends in an insane hospital are not the only ones that concern us. The feeble-minded, that increasingly large group with minds of arrested developments, minds incapable of reaching any high degree of men-

tality, we are informed, are caused from Syphilis and since this disease is responsible for many of our criminals and insane, it is receiving an unusual amount of attention. Syphilis and gonorrhea constitute a great menace to society, so much so that the Mental Hygiene Society is endeavoring to disseminate all the information possible concerning their infectious nature, their results, information concerning how to prevent their spread, and directions as to their cure.

From James Lincoln McCartney's article on "The Mentally Sick," I have gleaned some points which are woven into the following: Men are not born mentally equal any more than they are born physically equal neither do they develop equally mentally any more than they develop physically equally. We know that by scientific methods we can improve one's physical development by remedying physical defects. Why not apply the same rules to mental defects?

Man becomes mentally sick whenever he is unable to adjust himself to his environment. His power of resistance so as to properly adjust himself to his envoronment. His power of resistance so as to properly adjust himself to his environment constitutes his margin of safety and the extent of this margin of safety determines his degree of sanity.

Anger and other usually considered little matters cropping out may indicate a small margin of safety.

One may be predisposed to mental sickness as well as predisposed to physical ills. Such predispositions may be inherited or acquired. According to one authority 60 to 70 per cent of the cases of the mentally sick are inherited. Alcohol and syphilis are two factors responsible for the acquired predispositions.

According to the Mental Hygiene advocates, and I confess that their argument seems sound, our unfortunates suffer from mental diseases as they may suffer from other diseases. The plea of th Mental Hygienist is that superstition, ignorance, and fear give way to sensible consideration of causes. It is rather difficult to straighten a knotted, bent frame after rheumatism has done its worst, likewise, one would find it no easy task to straighten out the wrinkles in a warped mind and over-wrought nervous system. In both instances the object should be to eradicate the cause.

I am convinced, tthat ordinarily, it takes time for a mind to become so unbalanced that it is necessary to take a patient to an institution; I believe that criminality begins to develop when the unrestrained child gives way to fits of anger and strikes a playmate, or when he first begins to practice deceit, to steal, and to lie. If there is any truth in this, would it not be far better to use an ounce of prevention rather than be compelled to use the pound of cure?

CREATIVE WRITING—POETRY

By Margaret E. Haughawout, Associate Professor of English

Interest in creative writing has been increased during the past few years at Kansas State Teachers College of Pittsburg. In a course given since 1923 an attempt has been made to attain magazine standards. The course covers work in poetry, short story, and the familiar essay, any one of which, to be sure, would make a separate course. However, as there has not seemed to be as yet a place in the curriculum for a course in each, it has seemed best to allow each student to try his hand at all three forms, and then, after seeing which form he can write best, pursue that form during the remainder of the course.

The work is made as informal as possible. Ability in creative writing seems contagious rather than inherent and students get as much from each other as from the teacher. Suggestions are made, of course, by the instructor, as to the possibility of securing effects that have been secured by successful writers. This is done by reading poems aloud and analyzing the effects, Possibly the student's results are imitative, as they no doubt should be. (So were the first attempts of Keats and Coleridge and Tennyson.) But that much of the result obtained comes from the students themselves is shown by the fact that all effort speeds up when one particularly clever piece of work appears.

The largest part of the benefit secured from such a course is not that it turns out a new crop of poets. No one can attempt to write verse without afterwards appreciating more completely the verse appearing in our magazines and in volumes. Nothing will help one to see the trite phrase or the bombastic line, or to appreciate a line in which the real magic of poetry has been secured, or a line in which one "expresses infinitely more than one says" more than attempting and failing often, or attempting and succeeding occasionally, in writing a line that has real poetic quality. Another advantage that accrues from the writing of poetry is a greater ability in writing prose. Some prose writers write verse regularly purely for an improvement in prose diction.

Some of the results have been submitted to magazines and accepted. The most notable of these is the acceptance by the Midland and Measure of some of John Reinecke's poems. These poems of Mr. Reinecke's have also been selected by William Stanley Braithwaite and by Small, Maynard and Company for their anthologies of 1926,—no small honor for one's early attempt at verse. Mrs. Ethel Porter Weede has had the largest number of poems accepted—nine in all—by the Prism, Harp, Poet's Scroll and Pegasus. Several other student poets also had the pleasure of breaking into print.

That fascination which words, and especially resounding words, have for the poet, is the theme of the following poem. The rhythm of this poem is also most gratifying. Indeed, although this is free verse, so satisfying is the rhythm that one may read it aloud and not discover the loss of rhyme and meter.

Proper Nouns

I cannot master the common nouns
With their shading precisive meanings.
But the proper nouns—
I need not understand them,
Not even place them,
I have but to see, to hear, to image them,
And immediately they blare
Or ring sonorous;
Each reverberating, dissolving in ten thousand echoes,
Each word, whether it be
Ermintrude, Kenya, or Alor Star,
Libyssa, or Salmydessus.

—John E. Reinecke

Some have said that poetry is condensation. True or not, there is little poetry that does not possess this quality. A lyric poem is the expression of a strong feeling, often the expression of a life, a situation, a truth or an attitude to life, but always conceived through a lyrical moment. For instance, in the poem, "Quarrel," a life is related with its crucial and significant incident, but told through a moment's view. In "The Lily Spinning," an interpretation of a character seen suddenly in a new light is told from a viewpoint of a lyrical moment.

Quarrel

Something within me died
  So long ago.
The world saw only pride;
  It did not know.
Life lingers, so they say
  Who pass me by;
They do not know the way
  That some must die.
One look and then I know
  My heart had lied.
A tone, a word or two,
  'Twas then I died.

—Lucy See

The Lily Spinning

Has a wand passed over you?
  Or can you be the same?
Or being one, you're also two
  Or merely play a game?

I saw you in the office there,
  Trial-balancing, I think,
Oblivious of your rumpled hair,
  And face with speck of ink.

But with a smile tonight you sat
All femininity!
Immersed in children and a cat
That gazed in perplexity.
—W. Howard Donnelly

"Poetry should express infinitely more than it says," and many lyrics say one thing and suggest infinitely more. This is one of the touchstones of real poetry. "Reincarnation" says nothing of the abstract quality of Beauty, that alluring mistress of all the poets; but it cites instance after instance of times and places where Beauty has appeared. When you finished reading, the thing talked about appears as if by magic. In the poem, "I Have Stayed Too Long," the suggested idea that any precious and beautiful thing may be defrauded of its quality by too much handling is as truly expressed as if it were told outright; to tell it outright is to make prose of it; to tell it by suggestive and concrete imagery as has been done, makes of it poetry.

Reincarnation

I've met you oft in Thessaly's lands,
With purple graps stains on your hands;

Your slender feet so brown and long
I've tied Egyptian sandals on;

And there where David watched his sheep,
I've found you, crook in hand, asleep.

A lighted lamp sent you afloat
While I watched from my Ganges boat;

I saw where 'neath proud Buddha's shade
Your pliant body you have laid;

Is it not strange that we should meet
Again in busy city street?

The sight of you makes my heart sing;
But you pass unremembering.
—Elizabeth Lanyon

I Have Stayed Too Long

Within me were embodied
All the mysteries of the seasons,
The serenity of the stars in space,
The depthlessness of mountain lakes,
Once you said.

Each change of tone, look, or gesture,
Disturbed in you much troubled wonder.
You looked and saw blue depths.

But I am like a twilight stayed too long,
You have gone to sleep before 'tis night.
—Why do we not learn?
A dawn which lingers o'er its time
Makes a wood-thrush impatient for the day.
—Edna Small

Color, sound, fragrance, form, touch—all forms of sensuous beauty are poetic material. "Santo Domingo City" is a combination of appeals to all of the senses; both pleasant and unpleasant are used with the object of giving finally through the senses a picture of a foreign city. "Indian Paint Brush" gives you not what is sets out to give, the color of the weed when it is at its height of bloom, but through an appeal to the ear, an interpretation of its appeal to a mind not prosaic. In "Today The Door Stands Open" are bits of color and sensuous appeal. "Violins" is not only a description but is also an interpretation of sound and has good onomatapoetic quality, so that one seems actually to be hearing a violin.

Santo Domingo City

Gleaming beach, waving trees;
Sea-gulls screech, tropic breeze. . .
Boom of breakers in turgid sea,
Forsaken cattle of high grandee.
Salt-white sails on tiny boats
Moored to dock or midstream floats.

Flashing eyes, brilliant hues;
Topaz skies, crumbling mews;
Yell of drunkard in cool cafe;
Haggard witches peddling whey. . .
Horse-bells mingle with pad of feet,
Stumbling, weary, in stifling heat.

Plazas grand, palms serene;
Tropic strand, tambourine. . .
Vengeful land of sun and sky,
Dirt and filth and tse-tse fly,
Caco, cannibal, stagnant smell—
San Domingo—Gate to hell!

—Frank C. Adams Jr.

Indian Paint Brush

Exultant and high comes the cry:
Ki, yi, yi, yi! Ki, yi, yi, yi!
As warriors dance, horrble and grim,
Around the fire of their desire.

This phantasm of eye and ear
Is only a whim of fear
For a leap of color in flaming streak
Reaches up, as if by some strange freak,
To set the sky ablaze, and fill
The air with its strangling red,
Diffused and spread
Along a crest of hill
Which its brilliance seems to ravage:
Luminous wild flowers of the savage.

—Marie Baldridge

Today the Door Stands Open

Today the door stands open;
Above the prim box hedge I see it.

Within does the elderly clock tick on
Or is it also stilled?
Is the bowl upon the mantle
With pert, still zinnias filled?

Does light silk still rustle
Softly through the room?
Does the old picture of the admiral
Still smile jovially through the gloom?

Is the room still warmly dark?
Upon the table does that strip of gold still lie?

Today the door stands open,
But I, I pass it by.

—Ethelwyn Mendenhall

Violins

The violins sang to me today
Their wild acute notes
Filling each nerve with ecstacy,
Till my soul on fancied wings to soar,
Took its flight o'er terrestrial scenes
In mysterious pursuit.

Again they sang and now I lived
And felt the throb of human life
Encircling all; warm, tender, kind,
In devoted mood, I seek in fellowship
To serve; the power to grasp
The value of common things.

And yet their rapturous music swelled, and I
Walked among the trees, heard their whisper,
Felt their caress, Their glowing life
Enfolded me. I touched the billowing grass.
The waving blades touched my hand
And I became as free as they.

Again they played and throbbed and strained.
My soul struggled, but struggling could not rise.
Sorrow, sympathy, despair and pain
Held it, quivering in agony.
Then silence came, my spirit freed
Found peace with tears.

—Nell Peterson.

A lyric also may owe its power to a bit of philosophy of life which has been condensed into a concrete image or description or which has been suggested by it. "Mouse-Proof" is such a one "Door-Knobs" has a bit of philosophy concealed under whimsical concrete description. "Spring Interruptions" pictures life as one often finds it, but suggests the general truth by images that are lyrical.

Mouse-Proof

Mice-thoughts gnaw at the rafters
Of my consciousness with teeth
Sharpened by truth.

Unceasingly they eat at night
Into the wood and plaster walls
Of intellect.

They break the sinister loud silence
Of the darkness with their scampering
To and fro.

Why should all this annoy me?
My bread is safe within the tin box
Of self-content.

—Elsie G. Mitchell

Door-Knobs

There are door-knobs on the houses I go in;
And every one of them is a Siamese twin;
And each detests the other,
Turns his back upon his brother—
Even through the one without has never seen the one within.
The outside one e'er faced the sun and storm;
The inside one is polished every morn;
Though they're equally door-knobs
Yet they both of them are snobs
In a world that's all too little for their scorn.

—W. Howard Donnelly

Spring Interuptions

I see a cardinal in that tree.
(Where is your hat? Well, don't ask me.)
He will surely split his throat.
(This house looks like Noah's boat.)
Crimson on a background of brown.
(Oh, the things I am needing up in town.)
Calling to his mate in a nearby tree.
(Just as my mate is calling
"Here's a button off," to me.)

—Ethel Porter Weede

METAPHYSICAL BEHAVIORISM*

By C. B. Pyle, Ph.D., Professor of Psychology

First, let us consider metaphysical behaviorism as presented by Professor Singer, who is one of the most radical of the behaviorists, and who is a forerunner of Professor Watson. Singer identifies consciousness with behavior. Joining Professor James and others, he strenuously rejects the conception of consciousness as an "entity," or "eject" forever beyond the confines of experience. If mind is to mean anything acceptable to scientific inquiry, it must come within the bounds of observation. For no fact must be left unknowable, and forever veiled within the vast realms of reality. As science has divested the material realm of all "extra" entities; so must it divest the living organism of "soul" or "mind." We must come to see that the living body is a mechanism that behaves in a certain way. Life is not a thing to be inferred from behavior; it is behavior. For "disembodied life has been placed among the myths."[1]

In order to trace the implications of Singer's thought, we must understand his conception of mechanism. According to his own estimate, Singer does not attempt to construe life in purely mechanical terms, as does Democritus, who conceived the soul as a mechanical collection of atoms or as does De La Mettrie, who surpassed Descartes and conceived man as well as the animal as a mere machine. Nor does he construe the mechanism in terms of life "making the mechanism alive at every point" in a "monadistic" fashion, for this would issue into "hylozoism." Rather he takes his stand between these views, and defines life in such a manner that it may "dwell in mechanism and be a part of it" without either absorbing the other. They are distinct; yet there is no gap between them. Living beings are characterized by a common purpose, and it is this that defines them as living. Purpose implies freedom, but there is no freedom at the points of the mechanical system. Only when the points are grouped is there life, purpose, freedom. We may affirm characteristics of the group or whole that can not be affirmed of the parts, as triangularity may be affirmed of straight lines when properly joined in a triangle, but could not be affirmed of the straight lines as distinct parts of the triangle.

As a wave rises from the bosom of the sea and makes its way from point to point until at length it loses itself in the great deep, or spends its fury upon some cliff falling back exhausted to the common level of the ocean again; so a "pulse" of life may rise from the universal sea of mechanism, and make its way through the medium of which it is constituted until it is lost in the great deep. Unlike the ways of the sea, the pulse of life is not "wind-tossed, but rather purpose-

[1] "Mind as an Observable Object," Mind as Behavior, p. 16.

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drawn" as "'the lover is moved by the loved object'—until breaking upon some sudden obstacle or dying out in the viscous medium it is seen no more."[2] There is no more break between the pulse of life and the vast mechanism than between the wave and the sea. This "pulse" which is life is new in the universe, and may be defined in its behavior in terms of purpose, which is "self-preservation." Life is set in the frame of the vast, universal mechanism of nature. It pulsates through this mechanism as a medium. It rises from the heart of the mechanism from which it is distinct; yet of which it is always a part. It organizes itself toward ends which are the "average" effects of causes, and which are distinct from other "results" that causes produce.[3] Life sweeps through its medium—a "passing form," like a little whirlwind, which moves through the things that obstruct; yet it never ceases "to be of the same stuff and law as the other air through which" it moves.[4]

Having established the category of life, at what point in his system is he to introduce "mind?" Will he identify it with life throughout, or with only the higher reaches of life? Philosophers are accustomed to do one or the other; but Singer, in a concrete sense, does both. Mind denotes life, but connotes different levels of life. It is because living beings seek the same end with varying efficiency and forms of behavior that the concept of mind is imperative. If all beings pursued their ends with equal skill, the concept of mind could never arise. We are accusomed to say that different grades of mind produce different forms of behavior. But Singer exactly reverses this proposition, and asks why we should not judge differences of mind from observed differences of behavior. Wider variety of behavior indicates superiority of mind. By the empirical method, the gradations of mind can be measured by measuring the differences of behavior. Thus in his treatment of sensibility, he goes beyond Fechner, who, though objective enough, measured the intensity of the sensation in terms of the intensity of the stimulus. Singer would curtail the examination of the stimulus, except at the point of its effect on the organism. He would collect his data by varying the objective conditions, and by watching the results upon the organism as a class. After all, the behavior is not that of a particular organism, but a "statistical" behavior based on as many experiments as practical interests require. Such probable behavior would include "virtual" as well as "actual" behavior.[5]

The important phase of Singer's thought is the teleleological aspect. There is no sign of teleology in moving atoms as such; but

[2] "The Pulse of Life," Mind as Behavior, pp. 53 ff.
[3] "On Pain and Dreams," Mind as Behavior, p. 110.
[4] "On Pain and Dreams," Mind as Behavior, p. 110.
[5] "On Sensibility," Mind as Behavior, pp. 77 ff.

when they carry out a function of the organism which is its own development, the movement serves in a teleological capacity. The natural organism behaves, but it behaves teleologically. Singer's view of the movements of the body, in one sense, can not constitute the thought of the body as a thinker; in another sense, they do constitute the body as a thinker. If the movements are viewed as the behavior of any atoms outside of the body anywhere in the universe, they are not thought; but if the atoms are looked upon as carrying out the function of a special organism as a human body or tree, they may be regarded as teleological. The identical atomic movements, which if not grouped, are mechanical, are teleological if they are in the relationship of bearing forward upon their shoulders a living process. Atomic movements. realizing diversified functions, are teleological. The wheel, as a wheel among other wheels in a scrap-heap, would enjoy no teleological character; but that same wheel in a watch, or as functioning in a class of "timekeeping mechanisms," serves in a teleological aspect because it is carrying out a common purpose of the members of the class. The movement of the atom in the organism, are serving in a teleological capacity; and in this respect are mind. Referring to the "Passive Thinker," Singer says, "What I observe of his present behavior is not his thought; what I expect in the way of future behavior is not the full meaning of his thought.—But in so far as they (atomic movements wrapped up in the same skin) are the mechanism by which the same aspect of teleological behavior may elsewhere be worked out—then I am willing to say, 'This is the behavior of the passive thinker that I mean by his thought'."[8] Teleology differs from mechanism in that it establishes an "average" relation between cause and effect rather than a universal or mechanical relation. The "end" which is the average consequence that follows on the means becomes a source of prediction. Thus the objective validity of teleology is set up.

Having set forth briefly Professor Singer's behavioristic philosophy in order to reveal its type, we shall now consider its metaphysical implications. We confess at the outset that Singer pursues his philosophy with no completely unified thought. His ideas diverge. There are at least two important metaphysical implications—naturalism and a form of idealism.

(a) First, let us consider Singer's naturalism. Singer images the world as a universal mechanism from which life springs and has its being. As we have shown, Singer is unwilling to interpret life in terms of mechanism, and mechanism in terms of life. Yet it is difficult for thought to place both consistently in the same realm of being. We often mistake this difficulty of transition of thought for a real gap in nature. To bridge this supposed chasm in nature, we build phi-

[8] "On Mind as an Observable Object," Mind as Behavior, p. 48.

solophies which reduce life to mechanism, or mechanism to life. Obviously, Singer is making a tacit distinction between the thought world which is the scientific reconstruction (mechanical ideal) and the supplementary philosophical ideal (teleological), and "nature" which is without break or chasm. Furthermore, the starting point for scientific reconstruction is the common sense world which lies about us when reflection begins.[7] A realistic world of nature seems to be assumed at the outset. Whether Singer refers to this "common-sense" world, or to the reconstructed world, he does so in terms of moving atoms. The world lying in the background of his thinking is a dynamic atomism. It is not simply "atomism," for the universe may be explained by atomic structure (Democritus); yet it may be a static world. But for Singer, nature is teeming with energetic action. "Dynamic atomism" is the term that covers the constitution of the units, and describes the character of their relationships. In the lower phase of Singer's thought, mind shares in the general character, and is defined in terms of nature's constituents. Mind is not distinct from other parts of nature, and it escapes the rigor of scientific treatment no more than clod or star. Nature is an energetic source of stimulation; the organism is an energetic source of response; and mind is measured by the observed resourcefulness of the response.

This conclusion is justified by most of what Singer has to say about the similitude of the distributive motion of atoms throughout the universe. He brings the mind of the poet—all poets, musicians, and thinkers —to the level of the clod and star, culminating in atomic "one-ness," a pan-atomism. Human beings, with all their boasted grandeur, with all their hopes that flare up to gild a future sky, are distinguished in no way from things in space and time. Should we confront Singer with the question, "Is thought but the movement of atoms?" he would reply, "Yes" and "No." The apparent evasion or contradiction is removed by the explanation "that the movement of an atom is the movement of an atom and a thousand things besides."[8] The passage of an atom of carbon through the mind of a poet is like that in a lump of coal when it shoots into the bin.

But Singer does not let the problem rest here. Is the poet simply a "congeries of moving atoms," or is he something more? Singer agrees with Cossman that mechanism is "allgultig," but it is not "alleingultig," it is valid so far as it goes but it is not all the truth. Mechanical insights approximate, but they never quite arrive. If they should arrive at the whole truth, they would be face to face with "moving atoms" which constitute nature. But Singer says that poetic atoms are grouped. We are dealing with mechanism (the poet) that behaves teleologically.

[7] "Sensation and the Datum of Science," Mind as Behavior.
[8] "On Mind as an Observable Object," Mind as Behavior, p. 45.

What does this teleological aspect add to the situation? The grouping, the form, which is no addition. The form of curl of the wave is the new feature as the wave lifts itself from the level of the sea, but there is no change in the nature of the atoms which compose it. What Singer does say is that "living beings" are teleological, and nature is mechanical. But to say that living beings are teleological does not blot out their atomic character. Life, then, is but moving atoms; and mind which can be defined only in terms of the variations of the behavior of life is moving atoms also. Thus Singer leaves Aristotle's teleology dark and meaningless. Singer's teteology means grouped, moving atoms producing "average" results, which we may predict or expect. But atoms are grouped and moving in the stone, in the star, in the mass of the sea as well as in the wave which represents life—in the universe everywhere, wherever there is any reality one might call a thing, or mind. The sameness of the universe cancels mind, because there is no call for this category where there are no differences.

Aristotle was not content with the mere mechanical changes of atoms, but he insisted that these must be subordinated to the "form" which is efficient. Singer can not hark back to Aristotle; for he blots out the "form" or rather transforms the "ideal" form into "spatial" form of behavior by identifying mind with atomic movements. While Singer does not accept Hobbes' conception of sensation with its dependence upon physiological structure and physical stimulus, he agrees with him in the conception that mind is matter in motion. We are not always sure, in Singer's view, whether mind is simply "motion," or "atoms" moving. If the former, it is but the ghost of energy, which Singer himself would speedily banish. If "atoms moving" comprise the complete reality, mind is nothing at all. Really, in either event, mind is nothing at all. It finds no home in the vast realm of reality. Then why speak of it in any sense, even in that of identifying it with atoms in motion? The universe is divested of mind, and is comprised of atoms moving in a vast, teeming world of energy. Every vestige of "eject," or "epiphenomenon," and "parallel series" is excluded "leaving not a single wrack behind." Singer should thus, logically, exclude also his "thousand things besides," his "more than poet, musician, or moral being," and his "certain order of facts," which we may indefinitely approximate, but which is very different from the world of facts observed.

Professor Singer faces the troublesome question as to what status the mind may have, when, apparently, the mechanism is not behaving, yet is thinking. We are held in the mesh of an exciting and expectant spell while he makes answer to Miss Washburn's practical question, "What are you going to do with the being who thinks, but exhibits no behavior for the very reason he thinks?" The answer comes in the fascinating discussion of the "Passive Thinker." Though a thinker may appear as "stonily statuesque" as Rodin's "Thinker" before the Pantheon

at Paris, and even resemble the famous statue as to external complacency, he is not implicitly inert. For the vital processes are in operation, the eyes blink, and the "dendronated termini of the axis cylinder processses of the cortical neuronic protoplasm may now and then put forth a new and tender shoot," while the atoms dart hither and thither with lightning speed. On the surface, the thinker may seem composed; but deep down in his organism, he is teeming with dynamic energies whose activity is thought.

Singer's conception of the "Passive Thinker" is further clarified by the figure of the "dormant life" which the seed-corn illustrates. Though the seed does not function, it is alive. It seems lifeless, but it holds a promise for the future. The analogy is complete here as between the dormant life of the grain and the passive thinker. "Consciousness is behavior if you will; but more accurately our belief in consciousness is an expectation of probable behavior, based on an observation of actual behavior," says Singer.[10] The same difficulty that attends Singer's treatment of the thinker who manifests no outward behavior confronts him in his consideration of the intensity of sensation.[11] Advancing upon the older empiricism of Locke and Condillac, which regarded sensation as the immediate datum of experience, Singer defines sensation, as he does mind, in terms of behavior. As in Jennings' experiments with paramecia, we have the varying mechanical stimulations of changes of temperature, and the teleological response of the organism as they rearrange themselves in the trough. The observable behavior defines the sensation of the organism; the changing behavior represents the changing intensities of sensation. But the objector asks, "Is the paramecium without sensation when it is not moving? If it has sensation (and Singer says it does) when it does not move, how can sensation and behavior be identical?" Singer replies that sensibility is "passive" and receptive. If there is no behavior to be observed, there is "virtual" behavior, that is, behavior that we may expect on the average from any member of tha class. It is not necessarily the behavior of this particular organism, but such behavior as statistical probability might predict for the living being. But this is "average" behavior which would not fit any particular behaving being. Moreover, it would not be the behavior of the observed organism, either "virtual" or "overt," but an abstract ideal of behavior, or rather an expectation of behavior existent in the mind of the observer.

Singer is compelled to desert his stringent empiricalmethod when he admits that we have an expectation concerning the dormant seed only because we have observed the functioning of other seeds, and infer that the dormant seed will function, since it is like the others. Should all

[10] Ibid.

[11] "On Sensibility," Mind as Behavior.

seed lie permanently dormant, we never could conclude that they would grow, but we should conclude just the reverse. Similarly, we could never pass by observation alone from a passive to an active thinker. We must first observe the active thinker, then we may infer that the passive thinker might become active because it belongs to the same class. The dormant seed is a symbol of matter and its potentiality. It is not matter plus life, it is potential matter. This conception is half-way Aristotelian. It omits the mind-energy, which makes potentiality meaningful; but it accepts the "timber," which furnishes a subtratum for material development. The substratum contains all the elements of growth within itself if properly stimulated. So mind, which may lie dormant for a time, needs only to be sufficiently stimulated, and it will pass into action. We may then observe the behavior that we expected of it in the sleeping state. A behaviorist of this type begins with energetic matter or matter in motion both in the organism and in the environment, which are considered from the biological and natural viewpoint. He ends by making matter teleological in name only. He really transforms teleology into mechanism, thus robbing it of its significance. A refined materialism is the obvious outcome of the lower side of Singer's philosophy.

(b) Secondly, there are idealistic implications in Singer's philosophy. After the naturalistic mould is full, Singer tries to cram into it something that lies beyond the pale of observation. We see,even in his closely guarded thought, the "eject," which he strives so hard to keep out, now "clouding" his own way "through new fields." Like Banquo's ghost, it is up again, though many times fatally wounded with fierce saber-thrusts. For Singer asks, "If moving atoms are thoughts, had not that lump of coal a bit of the poet in its make-up?"[12] When Singer speaks of poet as a "congeries of atoms," he intimates, without telling us clearly, that the poet is something more than mere atoms. It is this "something more" that is of profound interest to the psychologist and philosopher. If the thought is something more than the movement of atoms, what is to be added to the atom in order to constitute thought? To what sort of "additive god" does Singer now bow that leads him to suspect the presence of something more in the poet than his atomic constituents? If in one phase of Singer's thought, the poet is interpreted in terms of the atom; in another, the atoms are interpreted in terms of the poet, that is, on the higher levels of reality. Bawden and Singer both are inclined to leave us at the parting of the ways.

Moreover, the pulse of life or "passing form" is of the same law and stuff as the medium through which it passes.[13] The poet is such a pulse of life. But the atom in a lump of coal has a "bit of the poet" in it Therefore, all atoms, whether in poets or in lumps of coal, are teleological. The universe is teleological throughout. Singer has assured us that

[12] "On Mind as an Observable Object," Mind as Behavior, p. 45.
[13] "On Pain and Dreams," Mind as Behavior, pp. 110-111.

the "little whirlwind" which organizes itself, and hurries "down the street" is one of the "same law and stuff as the other air" through which it moves. Reading up the scale, the "other air" is teleological because the total is a group of moving atoms and is therefore characterized by life, freedom, and purpose. To have adopted mind or "idea" at this point would have made Singer an idealist indeed. Put he can not apply the term "mind" to his ontological mechanism because the mechanism is uniform, while mind can be applied only to empirical differentiations of behavior. Life rises from the "vast sea of mechanism;" it is "drawn this way and that," even as "the lover is moved by the loved object." Singer does not tell us by what, or by whom life is thus drawn this way and that way. Had he done so, he would have gone quite all the way with Aristotle. He comes only so far toward Aristotle as Spinoza where he rests in the dumb, ineffable, undifferentiated blank, which he does not call "Substance." He calls it mechanism.

A nearer approach to idealism is to be found in Singer's treatment of the "datum" of experience. His first proposition is that sensation can not be regarded as the immediate datum of experience. Nor can any other term be found that does stand for the immediacy of experience, because there is no ultimate datum. Sensation lies at the end of the search for a datum rather that at the beginning. It is an ideal, yet unattainable goal. But for Singer, the search never ceases; it leads on into a distant, dreary, and endless way. Ordinarily, a definition of sensation ascribes to it certain physical and physiological relations. These render the sensation impure, for we can not abstract a "pure" sensation from the complexity of such relationships. Hence sensation, which is commonl supposed to be "given" in experience, is a highly reflective product. If sensation is the product of reflection, the world which is built of sensation is also a construct of reflection, that is, a world which presents itself to finite thought. If such a world is in any sense objective, it must also be conceived as output of Infinite thought.

But Singer does not go so far as to recognize Mind in his ultimate; and to the extent that he falls short of this, he fails, like Kant, to come through to a consistent and worthy idealism. Singer advances far beyond Hume with his vivid "sense-impressions" for which he constructs his empirical world. Singer's conceptoin of "scientific reconstruction" supersedes the sensationalism of Hobbes and Condillac which was directly dependent on bodily processes. It finds Helmholtz's "mere quality" no more satisfying. It even sets aside the modern sublety of a James which converts sensation into "an ideal terminus of abstraction."[14]

He, of course, rejects James' way of looking upon "bits of pure experience" as the immediate datum. Since the datum of science is purely relative, there can be no end to the search. The series is infinite, for "an absolutely simple and ultimate datum we neither must nor can have. Our search for it is a search for what, if found, would put

14 "Sensation and the Datum of Science," Mind as Behavior.

an end to our scientific progress in the direction of further reconstrc-tion."[15] Singer rejects every datum which history has proposed on the ground that it is self-contradictory. For an "immediate" is "indescribable and indefinable." Therefore, it can not be found. If it could be found, it could be described and defined. But we can describe only through universals; and a thing, when thus described, represents a type which passes beyond the "given," since it may be applied to any member of the class. Therefore, the "describable" can not be the immediately "given."

The positive conclusion which Singer reaches is that while we can not have an absolutely simple and immediate datum as our starting point, we may have an absolute starting point which is "the whole common-sense world in which we find ourselves when we begin to 'reflect.'" With this we begin to reconstruct our world by both analysis and synthesis. After laborious work, we arrive at a "comparatively simple datum for construction." The datum of science is always relative, and it arises from the "contrast of the more constructive to the less constructive terms of our thought."

Though vague and paradoxical, with each step in advance Singer brings his conception more clearly into view. He assumes the standpoint of science, which reconstructs the common-sense world. He even has a unique way of treating the common-sense world. Usually the common-sense world is regarded as the raw facts of nature which lie all about us waiting to be observed and recorded. It is regarded as the immediate sense world of nature which lies open to the investigations of scientists—a realistic world entirely independent of mind and its operations upon it. Though an empiricist, Singer holds even the common-sense world at "arm's-length," if we may be permitted to use this expression. While the scientist begins his reconstruction with the "common-sense world in which he begins to reflect," he does not begin with "raw facts." There is an element of description which the mind injects into the facts, so that the facts henceforth fit into the frame of interpretation. The "facts" are not to be discovered in bulk as they are sometimes thought to exist in nature, but they are in a sense "ideal." They are true, but they become more true as they are embraced in a wider interpretation afforded by further scientific reconstruction. The scientist approximates the "ideal" ever more and more. And even the "ideal" should be looked upon as an endless series of experimental reconstructions, not simply as Kent regarded it, that is, as an ideal regulation of the regressive series (an idea for which there is no object). For Singer, who views the problem more objectively, Kent's "reg-

[15] Ibid.

ulative principle" means, "reduce your probable error, eliminate more and more of the inexhaustible sources of constant error."[16]

By this objective method, Singer hopes to draw Kant's "noumenon" within the world of experience, rather than leave it, as Kant did, outside of experience and forever unknown. Singer interprets Kant's "unknowable fact" (noumenon) as unknowable only in the sense that it is "unattainable," that is, it is an "ideal." This means that there are always more data for scientific reconstruction. Singer would define the "noumenon" in reference to the phenomena, even though it be admitted that "noumenon" is different from the "phenomenon." He would thus introduce into his empirical world "that which appears" with the "appearance" and he would say that "that which appears" is an attainable "real" when compared with the "appearance"; but it is itself an "appearance" when compared with a "more real" (larger interpretation) which is attainable, and of which it is an "appearance." Each "appearing" points to a "more real," which in turn becomes an "appearing" that points to a "more real," and so on "in infinitum." Here is a progress whose goal is an "ideal," and progress alone "can define a real ideal."[17]

Deferring for a moment the question whether Singer actually dissolves Kant's "noumena" into an endless series of fleeting phenomena, or leaves his "common-sense" world where Kant left his "noumena," we pass on to his ideal conception of nature. Expressed in a single statement, nature is the average scientific description at any stage of development. The "facts" of nature include a degree of "probable error." Choices of interpretation of nature are always possible, and are determined by the principle of preference. They are not capricious, but tend ever toward "maximum unity." Science describes or classifies nature, and, for that reason, we may say that classes "exist in Nature."[18] Nature embodies finite choices which may be endlessly revised. With each revision, the probable error is reduced toward zero (but zero is never reached,) and thus greater unity is obtained. This is the "maximum unity" which always expands with later and truer interpretations—the unity of scientific description which Singer substitutes for Kant's "unity of consciousness" that expresses itself in nature. Thus, in one sense of the word, Singer reaches objectively the same thought that Kant reached transcendentally, namely, "The order and uniformity of the phenomena we call Nature, we ourselves introduce into them, and we had never been able to find it there had we not first put it there."[19] Nature is to be defined by a series of ever-broadening finite insights which make up developing science. "Science is nature in the making. Nature is completed science.—The maker of science

[16] "Kant's First Antimony," Mind as Behavior, pp. 280-281.
[17] Ibid., p. 282.
[18] "Choice and Nature," Mind as Behavior, p. 209.
[19] Ibid., p. 215.

must be the maker of nature. Nature is that image which science approaches as the error of observation approaches zero. So viewed, nature is no Ding-an-sich, but the name of a certain ideal."[20]

It is the Kant of the Dialectic that Singer reinterprets, and with whom he feels he is in agreement. The "unknowable fact" which lies outside of experience becomes an "ideal" which can be defined "only in terms of a method that possesses a device for distinguishing between the more and the less real"; so that for every experimental result taken for "true," there is always to be found by further experiment a "truer."

Though Singer and Kant have certain agreements, Singer attempts to go beyond Kant in his treatment of the Ding-an-sich. For both, nature is the product of thought. To that extent both are idealistic. Kant finds thought valid for nature because it constitutes nature through the fact of the unity of "transcendental apperception." Individual thought in its universal aspect makes nature. The overlapping of the universal element of transcendental selves was intended as the ground of the objectivity of nature. For Singer, the interpretations of scientific minds governed by the principle of relativity make nature. Both reduce nature to the phenomenal order, though Singer struggles to bring his "common-sense world" (his ultimate) within the bound of the empirical. Kant frankly leaves his ultimate (noumena) outside of experience. The "things-in-themselves" are independent of consciousness, different from it, and out of relation to it. No positive characteristics can be attached to them. They must exist, for there could be no "appearance" without them. Morever, sensations must be caused by things independent of us. But these things escape the categories of the understanding, and therefore, are entirely unknown. The real or "transcendental" selves, as contrasted with the empirical or phenomenal, are also removed from the realm of the empirical or knowable, and help to constitute ultimate reality. But Singer seeks to permit no "unknowable fact" or facts (things-in-themselves) to linger outside the realm of the empirical. In the scientific reconstruction of the common-sense world, Singer imagines that he has laid hold of the ultimate by identifying the "appearance" with the nature of the thing that appears.

If the ultimate reality is actually grasped by finite insights and interpretations, then it must be of such a nature as to lend itself to finite interpretations. And if this be so, we must invoke an ultimate reality of the character of mind. To insist upon the validity of scientific insight and the intelligibility of the world throughout implies the ideality of the world throughout. It is true that "the heavens declare the glory of Kepler and Newton." It is no less true that they

[20] "The Mathematician and his Luck," Mind as Behavior, p. 288.

also declare the "glory of God," and this fact provides an abiding ground for all the reconstructions of finite minds. Finite insights imply finite minds. Scientific reconstruction implies a "knowable" world. Singer insists that there is no "unknowable fact." Therefore, his ultimate reality is not independent of finite minds. His "common-sense" world to be knowable, must be amenable to finite thought. To be amenable to finite thought, it must be the manifestation of infinite thought. It is no longer a "common-sense" world in the sense of an extramental world, but it is a phenomenal order which expresses the will and deed of the Infinite. When once launched upon an idealistic course, to be consistent, Singer must advance to a thorough-going idealism. Empirical idealism sets out in the right direction, but halts within sight of its goal.

Singer's attempt to set out simultaneously upon two inconsistent, if not contradictory, ways is revealed in the statement, "One is all the more a realist for being idealist enough to see in Nature the embodiment of choices."[21] Singer is a realist then. In what sense is he a realist? In what sense, idealist? If we dared to be paradoxical, we might say that he is half idealist, and he is all realist. We have already seen how Singer had adopted Kantian idealism in a modifed form. He has divested Kantian philosophy of its transcendentalism. He has converted the a priori "synthetic judgments" into empirical choices or interpretations of nature. In the interests of an Empirical Idealism, he has brought the "noumenon" into an ideal relation to the phenomenal series. Apparently, it is no longer an "unknowable" reality. There is no "Nature-in-itself" lingering behind the "described nature." Singer favors the identificaton of the "universe of discourse" (the results of scientific description) with "the Universe." He rejects the suggestion of dualism in the statement of Montaigne: "There is the name and the thing, the name is not a part of the thing, nor of the substace: it is a foreign piece joined to the thing, and outside of it."[22] The descriptions are more than nominal; they are "true to Nature." This is Singer's idealism.

(3) Criticism. But Singer immediately qualifies his idealism in the interests of realism, for he says, "It is no doubt always possible to distinguish between the facts of Nature and a classification to which they are subjected."[23] These facts of nature are indifferent to their classification. If they were not, a series of choices of interpretations would not be possible. But they are not "independent" of all classification, for the facts "presented in Nature" are the products of "finished classification." Otherwise, they could not be "presented." Singer says

[21] "Choice and Nature," Mind as Behavior, p. 209.

[22] "Choice and Nature," Mind as Behavior, p. 204.

[23] Ibid., pp. 205-206.

that the reconstruction (classification) never ends; it goes on "in infinitum." Therefore, the "fact of Nature" can never be presented. This is Singer's realistic world of nature—a world which science ever approximates, but never reaches.

Moreover, the "common-sense" world in which "we begin to reflect," lies all about us before we begin the reconstruction. What was the nature of this world when it was young, before there were any scientists to reconstruct it? What is the nature of the world which is not yet reconstructed (for the reconstruction is not ended, in fact never can end)? Is not this "common-sense world" another "Nature" differing from the first as the "realistic nature" which the biologist and physicist feels he investigates and describes differs from the scientific description of such a nature? What is our assurance that our scientific description "involves" the facts of nature? Is not "excat"science, confessedly, a short-hand description of approximate probabilities, and are not the laws of nature but statistical "averages" of the observed behavior of matter? Instead of "approximations" making us certain of the truth, they let us know that we have it not—ever not quite. To find the ground of truth in the gratification of a desire for "maximum unity" is to postpone it to infinity. At no point in the phenomenal series does Singer discover ultimate reality. His "Empirical Idealism" leaves the "common-sense world" or realistic nature waiting outside of knowledge.

It does not avail to bring the "common-sense world" into the empirical series for Singer to appeal to a "universal will"; for that will is not the will of a Supreme Being who actuates and embraces all. It is the will of society, of finite beings only; it is distributed to individual human beings. Like Comte's "humanity," it is a pure abstraction, a remote image of the concrete units of the races of all ages. Is there a real, concrete humanity above and beyond the individuals that compose it? Is there a "universal will" or desire in addition to the individual wills and desires of the members that constitute society in all ages? Must not individual scientists reconstruct the "common-sense" world? Can we add individual reconstructions and thus reach a "maximum unity"? Does not Singer go beyond experience when he conceives of a great unity, a truer interpretation than that which already obtains? But if "maximum unity" is anything concrete and experiential (and it is for Singer), it is the result of experience, not its ground of possibility; for experience must ever precede " maximum unity." How then can "maximum unity" constitute experience? Or how can the "struggle for maximum unity" be the ground of experience when experience must have set out in order that there may be a struggle? There could be no struggle for "maximum unity" until the scientists made a second "interpretation" which they prefer to the first. But by that time, some experience has taken place in the way of observation, experiment, and the gathering of "statistical averages." Singer has led us to the point where we can appreciate his own paradoxical expression, "We can not start until we have already

proceeded, we can not proceed until we have started." When the scientist begins his search, does he share fully in the "universal will of society," the will that is broader than his own age—as broad as all the ages? If not, then the "struggle for maximum unity" does not constitute experience nor is it the ground of its possibility. If the scientist does share in the "universal will," that universal will can be nothing concrete; for the scientist in the beginning has advanced but little toward actual maximum unity. Therefore, Singer's "maximum unity" is an ideal goal of the "struggle." In an Aristotelian sense, it may be the final cause of the struggle. But in this ideal conception, Singer is far from his notion of experience as observation and experiment.

In the meantime, Singer's "common-sense world" waits outside of this ideal structure. How shall we evaluate it? We have shown on the one hand how Singer idealizes nature. On the other hand, he assumes another sort of nature—a realistic world which is to be reconstructed. He attempts to include it in his experiential world by identifying its observable behavior with its ultimate nature. When Mr. Miller asks, "Are the nature of a thing and the tokens by which I infer its presence the same?" Singer answers, "They are to me the same." Behavior is the meaning of consciousness. Mind is only a term invented to express the varied resourcefulnes of lives and the measured differences of the behavior of life. The nature of mind lies in these differences. The tractor that does the work of ten horses must, therefore, possess the nature of a gigantic horse. The automaton which plays checkers with a living human being and defeats him must have the nature of a man, for it behaves like a man. The only difference is that the automaton has a higher grade of intelligence than the man. Strictly speaking, there can be nothing but "appearance" in Singer's world of experience. And what could appearance mean without something to appear? What could appearance mean with no mind to appear to? How could scientists reconstruct a "common-sense world" when they have no mind?

Moreover, if scientific reconstruction only indefinitely approximates the "common-sense world," that world must lie beyond the order of observed facts. Who can tell how closely one approximates unless he knows this "certain order of facts"? How shall we judge between the observed realm and the order we approximate? There is no way of knowing the phenomenal series until the data are all in. All knowledge is postponed progressively in infinitum because the data are infinite. This implies an independent, extra-observational order which eludes us. Singer's "common-sense world" like Kant's "noumenal world" remains forever in mystery because experience embraces only the phenomenal. Like Kant also, Singer claims knowledge of the phenomenal (the observed); but he can not know even the phenomenal or observed world unless it is

[14] "Sensation and the Datum of Science," Mind as Behavior, p. 180.

the manifestation of an ontological causality of the nature of mind. Since Singer rules out mind altogether, he is thereby committed to naturalism.

It seems that Singer has attempted to solve the problem of mind and experience by the most tortuous and difficult way. In denying an "immediate" he has overlooked the immediacy of conscious experience. Conscious life bears direct witness to the facts of introspection. Immediate experience distinguishes the facts of consciousness and the behavior which symbolizes them. Indeed, behavior could mean nothing without the interpretation of consciousness. The observation of behavior would be impossible without consciousness. If the facts of consciousness are not granted, the facts and laws of nature are inaccessible, and an empirical world of any sort is an impossibility.

Behaviorism decries the introspective method because it seems to hide mind from objective observation. A serious defect of the behavioristic view is that thought is made far more hidden and unobservable than by introspection itself. Singer introduces elements more truly veiled than the total results of introspective study. This is obscurum obscurius with a vengeance. If the metaphysical implications of Singer's philosophy lead us, on the one side, to a world of teeming energies, they present us, on the other side, with an unknown world forever beyond the power of men to grasp. Moving either way, we pass toward the unknown. Singer deplores the nuknowable; for there must be nothing veiled or hidden; yet he himself says, "If one should ask, what leads us to call certain objects conscious, I would say, 'I do not know and expect never surely to know.' If one should ask what aspect of behavior of certain objects leads us to call them alive, I must return the same answer. The deep, blind instincts of the race are not easily enticed out into the light of day." The root end of the deep, blind instincts lies buried in mystery, and the other end toward which all moves lies veiled and hidden because we only approach that "very different order of facts" upon whose unknown and unoobserved bosom the world of observation rests. Here, then, are enough hidden things for one who has no special predilection for the mystic and occult.

[9] "On Mind as an Observable Object," Mind as Behavior.
[14] "Sensation and the Datum of Science," Mind as Behavior.
[25] "Consciousness and Behavior," Mind as Behavior, p. 27.

SUMMER SESSIONS. 1928

Kansas State Teachers College of Pittsburg

First Session: begins Monday, May 28, and will extend to July 27.

Second Session: begins Monday, July 20, and will extend to August 24.

The Kansas State Teachers College of Pittsburg has arranged one of the best programs for teachers of all grades and secondary schools that we have ever offered. Our curricula has been greatly enlarged and our faculty for the summer session will be enlarged by the addition of specialists in the various lines emphasized by this institution. The completion of the Horace Mann Elementary Training School will furnish us added facilities for training school work which have been greatly needed for a number of years. The completion of this building has not only furnished us opportunity for better work in the training school, but has also given us additional space in Russ Hall to carry on a much better program of secondary education for our practice teachers in their respective major lines.

In this brief announcement we cannot enumerate all the good things that will be presented during this session. We shall be glad to welcome you to the enjoyment of this program.

For further information, write K. S. T. C., Pittsburg, Kansas.