

# Letters

## A Meeting of Minds—Bump, Bump, Bump

The following letter to Robert Sinsheimer concerning his article in the January *E&S* ("The Brain of Pooh: An Essay on the Limits of Mind") is reprinted, along with Dr. Sinsheimer's reply, with the permission of the correspondents.

DEAR DR. SINSHIMER:

I have read with great interest your recent article in *Engineering and Science*. Clearly the article might have been entitled *The Brain of Pooh: An Essay on the Limits of the Mind of Robert L. Sinsheimer*. Perhaps you feel that external manipulative control of other human beings is a legitimate aim of science. I do not—nor do I feel that within my own lifetime will I ever fully reach the limits of my mind. Articles such as yours confirm the popular view of scientists as controlling, manipulators of other humans—ostensibly for their own good—but actually to satisfy the desire of the scientist for immortality and power. You will of course recall Dr. Frankenstein and perhaps you will also contemplate his doom as parallel to that of a science that has so little humanity that it must be destroyed by a popular uprising.

Our selfs were not constructed by evolution to deal only with the immediate external world. Our minds also enjoy an unlimited potentiality for imagination, creative feelings, hope, and care. Scientists who wish to deny these facets which free the mind of the narrow constrictions imposed by Aristotelian logic and linear thought resemble Pooh-Bear and will continue to bump-bump-bump down the stairs until the end.

Fortunately, each of us is also a Christopher Robin: a finite center of possibility, of knowing, and of willing that tends to be infinite—because we can imagine not only the possible and conditional—but can conceive the impossible, the unconditional, the infinite, the whole and the nothingness of being. These unlimited possibilities reside in each of us—and can be tapped by each person willing to take the risk, without recourse to DNA or injections of other drugs.

I believe that man is capable of being human now; your view seems to be that man is the missing link between apes and machines.

JAY M. SAVAGE  
Professor of Biology  
Associate Director,  
Allan Hancock Foundation  
University of Southern California

The reply:

DEAR DR. SAVAGE:

Your letter raises important questions which deserve discussion. (They also deserve a better advocacy than trite reference to Frankenstein and power-obsessed scientists.)

I believe the essence of our disagreement lies in your assertion that there are no limits—"unlimited possibilities"—to human capacities. I could wish that I could command the conceit to believe that.

As biologists we are well able to recognize the limitations of other species (relative to our own) in the performance of varied mental functions. What reason then is there to believe that our capacities, derived in a sequence of evolutionary steps, are not also subject to limits?—though it is of course more difficult for us to perceive these limits. That we can extrapolate in certain dimensions to zero or infinity is hardly an answer. Indeed for a certain few functions we can already begin to define these limits, as I attempted to describe.

It is not my aim to "manipulate" man. Quite the contrary. I believe that these limits—still largely undefined and unrecognized—to human capabilities are in fact basically responsible for much of the woe of the world. And I would hope—when change becomes feasible—to use this knowledge to free us from these inherent and crippling constraints which we have had for so long simply to accept.

This is not manipulation—it is the enlargement of human freedom.

ROBERT L. SINSHIMER  
Chairman  
Division of Biology  
Caltech

## Millikan Speaks For Himself

EDITOR:

Please refer to the article by Arthur Laufer in the February 1970 issue ["The Sponsorship of Basic Research"], page 12, 2nd paragraph. Mr. Laufer states that in the 1930's Dr. Robert Millikan, "in answer to an English bishop," referring to atom energy, said:

"... That energy is destined to stay locked in the atom. The Creator has put some foolproof elements into his handiwork and... man is powerless to do it any titanic damage."

Now I heard Dr. Millikan say some things about the atom in either 1921 or 1922 (certainly not later). He carefully

described the enormous amount of energy in the atom. Of this I am sure because it really made an impression. Then he talked about the future. And as I remember, he said that it would take a long time for scientists to find a way to get this energy.

We can all agree that Dr. Millikan missed on his estimate of time. But I strongly doubt that he believed that it remained locked up.

My memory is open to question as to some of his statements. But surely there are men still around that knew him well and can comment with greater certainty.

A. M. WHISTLER, '22  
Los Angeles

Robert Millikan made the statement in an article he wrote entitled "Alleged Sins of Science" in the February 1930 issue of SCRIBNER'S magazine.

## Un-Friendly

EDITOR:

It is indeed unfortunate that you do not appear to understand what biased reporting is or how it works!

If you had published the speech given by V. P. Agnew AND that given by Mr. Friendly in the January 1970 issue of *E&S* ["Some Second Sober Thoughts on Vice President Agnew"], careful reading would have shown you and all readers that in almost all instances Mr. Friendly, in disagreeing with Mr. Agnew, has distorted or otherwise misquoted from context, thereby completely changing Mr. Agnew's intended meaning.

The message which my study has shown that Mr. Agnew was trying desperately to convey is apparently beyond the comprehension of those who today call themselves "liberals." Mr. Agnew was in effect calling for Dr. Millikan's "Scientific Mode of Approach," not the spouting of a personal ideology without the speaker making any honest effort to develop an understanding in depth of the full spectrum of philosophies important in a given field.

To be specific, the complaint he made about Mr. Harriman was against the use of Mr. W. Averill Harriman and ONLY people who believed in Mr. Harriman's ideologic philosophy as critics of Mr. Nixon, choosing NO ONE NOT AGREEING WITH MR. HARRIMAN.

Remember: Mr. Harriman had a hand in the loss of China to the

Communist juggernaut, in the early activities in the loss of North Korea, in the sell-out of Laos to the Communists which made the Vietnam nightmare possible, and most recently he has been of course in Paris. In the face of these and his other activities, how can you say other than that his ideologic orientation is soft on Communism?

I care not what his or anyone else's *personal* philosophy is if he understands his subject to such a depth that he CAN IN FACT LOGICALLY DEFEND ANY OF A FULL SPECTRUM OF VIEWPOINTS. AND DOES!

I just wish I could find more than one major mass media group or group of individuals, signed, or unsigned, who understood in depth the fields they discuss, and made an honest effort to treat their subjects objectively.

It would appear that to get ahead in the mass media you have to be a graduate of the London School of Economics or believe strongly in their socialist philosophy.

You see, Mr. Friendly apparently equates analysis with ideologic bias. I doubt that this is intentional, but he probably knows much more than he understands in these subjects. So

he sways with the "crowd."

There is a big difference between objective "analysis" after a presidential speech and using "analysis" time for counter-briefing (as President Johnson and President Kennedy both found). In fact, only a few days ago, CBS News teamed up with the Democratic Party to put on a so-called "NEWS Special" which was really either a continuous commercial disguised as news or demagogic propaganda all the way through. Yet they almost completely hid the fact that the Democratic Party had anything to do with it, to the point that I thought that CBS News had hit an unbelievable new low. Normally CBS News insists on keeping complete control of content of a special news program. Unless they are teamed up with socialist-thinking Democrats? That was a perfect example of why Mr. Agnew felt obliged to speak out.

Can't you return *E&S* publication activities to following at least partially Dr. Millikan's "Scientific Mode of Approach" by making certain that the full story relating to such events as Mr. Friendly's visit is presented for readers? Not all readers had access to the text of Mr. Agnew's speech for study in addition

to hearing it. Only through detailed comparisons can the insidious effect of Mr. Friendly's misquotes be brought out clearly. (You probably would not have published his speech if you had done it objectively yourself!) Objectivity is a vital criterion for all activities at a school like Caltech. I feel that even the Caltech YMCA should show more objectivity than it does by selecting a broader spectrum of speakers. But I have yet to see an even half-way objective presentation of any viewpoint in *E&S* where a politico-economic bias is possible.

Our society is heterogeneous, not monolithic. Otherwise Caltech could not exist at all. Isn't it time you recognized that it takes heterogeneity and independence of thought and action and intellectual laziness on the part of people, particularly in the politico-economic sphere, to maintain our "unstable" but highly productive economy in the face of efforts to crowd us into socialist stagnation?

The fact of the matter is that without man's creative instability and his desire for independence, we would still be in the cave.

KEATS A. PULLEN, JR., '39  
Kingsville, Maryland

## Hadley Ford Is Never Bored



Hadley Ford, in charge of university relations at Caltech's Jet Propulsion Laboratory, found his life changed considerably when, during a plane trip last December, he noodled out some little poems.

Once started, there was no stopping. He took to carrying pad and pencil all the time because he couldn't ignore the poems' demand for liberation. He has since turned out more than 250, and says it hasn't been easy to live with all those things tumbling about in his brain. He wonders if there will ever again be a time when he won't see the world in poetical groupings such as those on this page.

The universe is not  
As we know it  
Our perceptions  
And projections  
Grow it

Life results from the Atom's insistence  
On Learning  
Of its own existence

We will soon  
Compose our hymns  
Entirely  
Of acronyms

Let me make a simple  
Assumption  
Success depends on the square  
Of one's gumption\*

\*Another assumption  
I'd like to share  
Our nation's success  
Depends on the square

Things may get better  
before  
They get worse  
but not if you consider  
The whole universe

Here's a question  
On which you might brood  
Is the air you breathe  
Any worse than your food?

The best management tools  
Come  
From bending the rules  
Some

Proposed ideas  
Are seldom gem'nal  
If they start with  
An "Ahem"nal

Some errors are little  
And some are much less  
But it doesn't take many  
To end in a mess