Dr. Karin D Knorr
U. Pa

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... Chronological Reasoner ...

You were very generous to send me a unique report of your critique.

I was pleased to see it was not global refutation; and what I sent you is not incompatible. I had not realized anyone could hold the metaphor-theory in the excessively strict form that you criticize.

About risk-avoiding strategies -- since the stakes may be commensurate with the risks -- I am very much concerned that we institutionalize lack of daring in so many ways. The organization that you studied may be more typical of the mainstream of American science than of its frontiers; and that may have to do also with the relative poverty of fantasy reported to you.

On the other hand almost everyone works a major retrospective reconstruction of discovery, and, frankly, I am rather skeptical of most or all discovery accounts.

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The impossible is needed - real time recording of all that goes on to capture the scientist in flagrante delicto.... and at that the data would be liable to ambiguous interpretation.

I am very pleased nonetheless to see efforts like yours at empirical study! For years I have tolled, from time to time, on the theme: "Do scientists understand science?" and our hopes ultimately to be less nihilistic. Needless to say, authentic insights about our process will have the most important implications for policy and culture.

I will look for Vol IV and for your own book when they are published; and I hope you might remember to send me some of your other journal publications.

Sincerely,

Steven Fuller

P.S. You are quite right that scientists attach themselves to a conjecture and work hard to prove (not falsify) it -- and understandably in the light of the sweat it takes.

I had great difficulty persuading most of my colleagues that I did not have a strong prior conviction whether there is life on Mars before the Viking mission. So many people had such strong negative dogma that the arena was strongly polarized, and it was hard to define a posture that was merely uncertain or agnostic.

It is rarer to find a hypothesis such that yes or no conclusions are equally feasible and interesting. And these are, ipso facto, the best burdened with risk. A/C problems of time, etc., are most urge graduate students to look for that kind of problem. But what a socialization that is!

P.P.S. Did you save a reference to citric acid and inhibition of browning of proteins?

(One of my colleagues works on medically important reactions analogous to browning.)