

Stupidities

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I loved Jamie’s term “stupidities” to describe those “grounding mistakes” that so often ignite creativity, both in science and in art.

1 Stupid Physics Ideas

Once upon a time I had an idea to produce muonic hydrogen in vacuum at thermal energies — something that might be useful in testing some details of the weak interaction. The idea was that when a proton captures a muon it forms an atom that is 207 times smaller than a normal hydrogen atom. I figured that was more or less like a “fat neutron” and it would easily diffuse through a thin film of solid hydrogen and out into vacuum where we could study it undisturbed. It was a stupid idea because that’s not nearly small enough not to hit anything. It could never have worked, and I should have known better.

Nevertheless, I convinced some collaborators to give it a try, and we submitted a TRIUMF proposal that was approved. We set up the experiment and looked at the vacuum region downstream of the solid hydrogen film. . . and *we saw muons decaying there*.

What had actually happened is that the muons were quickly transferred from the protons to the tiny fraction of deuterium in natural hydrogen, and by a stroke of luck solid hydrogen *is* transparent to muonic deuterium, which was what we were seeing emerge into vacuum.

This led to some interesting experiments on muon catalyzed fusion (μ CF) which involves muonic deuterium combining with tritium to effect deuteron-triton fusion.

Sadly, μ CF will never be quite efficient enough to act as a power source; but it was interesting nonetheless. Has I been less stupid, we would’ve missed a lot of fun!

2 Stupid Writing Ideas

I've mentioned that I retired from my faculty position at UBC intending to carry out my original plan of becoming a "credible" science fiction writer — and related the story of Margaret Atwood sitting at a fancy dinner next to a brain surgeon: he said to her, "When I retire, I'm going to write a novel." And she said to him, "That's amazing. . . when I retire I'm going to become a brain surgeon!"

If this story is true, Atwood was unnecessarily cruel; but of course she was right: one does not become a novelist just by wishing to be one. It takes a lifetime of training, just like brain surgery or writing Physics papers. And that training is not necessarily compatible with writing good novels. In my case I had conditioned myself to get right to the point in as few words as possible, making myself as clear as I could right from the start.

But while this was terrible training for novel writing, it was not too bad for short-short stories, *rants* and bad poetry, which is where I've been focusing my wordsmithing urges ever since.

3 Stupid Psychology

Not all *stupidities* are sources of creative inspiration. Some are *invisible forces* inspiring destruction. We are all subject to many logical fallacies and endocrine-driven urges that incline us to make decisions that are unwise and hold beliefs that are untrue. With enough reinforcement, such beliefs can become impervious to contradictory evidence. In most religions, this is called "faith".

On the Internet it is called "siloining" and "manipulation". It is extremely profitable for the companies supplying "social media", since captured attention means more effective advertising, from which they profit. As has been recently revealed, such corporations are fully aware of these traps, and have expert psychologists designing newer, better ways to capture our attention and manipulate our behavior.

Other users of these media also utilize these invisible forces to manipulate populations, up to and including elections and insurrections.

By far the easiest person to fool is yourself. The ideas that need to be regarded with the most skepticism are those you believe to be your own. The "Logical Fallacies" poster should hang on your wall and be consulted constantly.