

Science and Non-science

HIPPU SALK KRISTLE NATHAN



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society in discouraging people who try to experiment with new ideas in line with what happened to the monkeys.

If we claim ourselves more advanced than monkeys, let's be broad minded. Let's open up our senses, observe things, reason out the issues, discuss them freely and frankly, and then accept or reject things. Let's question why we should follow certain rituals and practices. For instance, let's question why we should offer prayers before writing exams, or why we should worship a newly purchased vehicle. Let's give space to new ideas and experiments. Let's not continue customs and traditions just because they are the conventions... just because, they are there.

Dr. Hippu Salk Kristle Nathan is an Engineer-turned Development Researcher with an M.Tech. from IIT-Delhi and PhD from the Indira Gandhi Institute of Development Research (IGIDR). He is currently a Post-doctoral Associate at the National Institute of Advanced Studies (NIAS), Indian Institute of Science (IISc) Campus, Bangalore-560012. Email: hsknathan@nias.iisc.ernet.in; Website: <http://works.bepress.com/hippu>.

WE make use of science and its applications in our daily life, education, and profession. However, in certain aspects of personal life, we subscribe to non-science or blind beliefs. We run to jyotishis and ask for muhurtas for marriage, birth or death ceremonies, or even while entering a new house.

The cultural setting of the society in India is such that no one is allowed to question the rationality of our rituals and festivals. The natural resources these festivals consume, the public space and time they occupy, the media attention they receive, and most importantly the possible non-science they spread – are some of the questions that are kept outside the public discourse and scrutiny.

Don't you think, we, as students of science and as citizens of India who have the fundamental duty to develop scientific temper, humanism and the spirit of inquiry and reform [Art. 51a(h), The Constitution of India] need to question the ceremonies and the age-old traditions? We generally don't take that trouble. On the contrary, when we are asked to reason out, we often say 'I don't know- that's how things are done around here.' This is exactly what resulted in the

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Monkey experiment. Let me brief you about the experiment.

Five monkeys were kept in a cage having a ladder in the middle with ripe banana on the top. Every time a monkey went up to the ladder, freezing water was sprayed on the other four monkeys. After this was repeated for a while, anytime a monkey attempted to go up the ladder, the others prevented and beat it up. So, over a period of time no monkey dared to go up the ladder irrespective of the temptation of the yellow bananas.

Next, in the experiment, one of the five monkeys was replaced by a new one. The first thing the new monkey did was to go up the ladder. Immediately the other four fought with this new entrant and did not allow him to make any attempt to fetch the bananas. After several beatings the new member learnt not to climb the ladder even though it never knew why.

Next, another monkey was substituted by a second new one. And when this one made the same attempt, others attacked him. Even the other new one participated in the beating, although it did not know why. Subsequently, the other three monkeys were replaced by new ones at each step. Finally, what did we end with? A situation where a group of five monkeys who never received a cold shower still continued to prevent each other from getting close to the bananas.

A society burdened with blind beliefs is no better than the situation of the monkeys in the cage. We often lack the scientific temper and courage to challenge blind beliefs and fight with the older generation to break the traditional fear. Rather, we also often join hands with