

GLOBE EDITORIAL

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Why?

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RESEARCH EXPLORING how the Venus flytrap snaps shut on its prey may not win a Nobel Prize, but scientific curiosity can be its own reward, leading to serendipitous discovery as well as making the pulse race a lot more frequently than the lightning-strike call from Sweden.

Lakshminarayanan Mahadevan, Harvard University professor of applied mathematics and mechanics, who led the team that published its carnivorous plant findings in the journal *Nature* last week has made a career of looking into things just because they're interesting. His philosophy should be inspiration to educators seeking to ignite young minds, and to anyone who wants to keep his or her own gray matter nourished.

Mahadevan has studied the patterns of crumpled paper, analyzed the way fabric folds and wrinkles, and stared at the feet of houseflies to determine what makes them stick, and then unstick, to ceilings and walls. The crumpled paper research has provided insight into the formation of mountain ranges, while the cloth studies have helped animators and Internet sales departments get virtual clothing to look more natural. The fly analysis may have applications for the glue industry.

The Venus flytrap research included mathematicians, engineers, and biologists working with high-speed video cameras and computer models to track the near-instantaneous closing of the plant when food lands on its maw-like leaves. Mahadevan's team showed that the plant keeps those leaves stretched taut like a rubber band, and that the pent-up energy is released to capture the prey.

The point of the experiment was to answer the question people ask about the world from the time they can talk: *Why?*

"The questions I ask are not important on a grand scale, but they're interesting because they're around us," Mahadevan told the Harvard University Gazette last summer. He said that what excites him "are things so in your face that almost no one thinks about them."

In an interview with the Globe last week, he noted that people often assume that because something is familiar, "it is understood. But if you really probe, there are mysteries."

Assumption is the enemy of curiosity and can cause people to misread each other, breeding prejudice -- or war. Assumption can poison a democracy with sleepy citizens who don't probe beyond slogans. Assumptions about nature can bring destruction to homes built precariously on mountainsides, or wash away lives by the thousands in a tsunami.

Seeking an understanding of everything -- from a strange plant in a pot to the outermost dust in the cosmos -- is the zest of science, and the best way to meet the challenge of living. ■