

THE ASPEN INSTITUTE

ASPEN IDEAS FESTIVAL WELCOME AND CONVERSATIONS

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Aspen

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LIST OF PARTICIPANTS

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PRIYAMVADA NATARAJAN

MS. NATARAJAN: Could I start? My name is Priya Natarajan. I'm an astrophysicist and on the faculty at Yale. And one of my favorite books --

SPEAKER: Louder.

MS. NATARAJAN: Louder?

SPEAKER: Louder.

MS. NATARAJAN: Okay. My name is Priya Natarajan. I'm an astrophysicists and on the faculty at Yale. And one of my favorite books *Alice in Wonderland*, when Alice says that she can't believe in impossible things, the queen responds: "I dare say that you've not had much practice."

My big idea is to challenge you all to open your minds to examine a cherished believe and evaluate if it needs a makeover just once a month. I'm like the White Queen who does it six times before breakfast. I would like to invite you to make it a habit to believe in impossible things.

We've made tremendous progress in science and technology by refusing to rest on what we already believe, to allow ourselves to be led by our curiosity, to adapt and change and be open to even altering our mental frame.

Looking back we see that even the greatest scientific minds like Einstein whose radical ideas reshaped our conception of the cosmos struggled with changing his beliefs. When the astronomer Edwin Hubble found evidence for an expanding universe in the 1920s, Einstein was a holdout, fixity was what he was attached to and he liked the idea of a classic steady universe. Overwhelming evidence from Hubble's findings finally compelled him to change his mind.

I for one loved Pluto and was emotionally upset at its demotion.

(Laughter)

MS. NATARAJAN: It fractured the tidy view of the solar system that I had come to love as a child. But then I came to understand that the accumulating data and our growing knowledge required the new categories of dwarf planets and planetesimals to be devised. And of course now we have uncovered the possible existence of a brand-new ninth planet that might well be lurking in the outskirts of our solar system.

One never knows when even the smallest shifts and being open to change might lead us. Copernicus could never have imagined that we would one day build and send spacecraft as we've done the Voyagers 1 and 2 to stray beyond the sacred boundary of our solar system. What he did, though, was set in motion a sequence of radical ideas, each one of which challenged the one before and refined it to get us to where we are.

Flexibility, curiosity, imagination and the readiness to embrace change are unique cognitive gifts that we possess. Let's train our minds to stay nimble and make one leap as a monthly practice to rethink and maybe even suspend one of our cherished beliefs in the hope of gaining a new insight and or even accepting a brand-new idea or belief.

As Immanuel Kant said: "Sapere aude, dare to think." Can't we all do a Kant? Yes, we can.

(Applause)

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