



Jonah Lehrer: The Power of Outsider Intelligence

Jun 21, 2010

Last week the Theater Communications Group convened its 49th annual National Theater Conference in downtown Chicago. One of the main themes of the conference was the concept of the "Creative Ecology." The term was confusing to some, especially in comparison to the other three [themes devised by TCG](#): Artists and Artistry, Race and Gender, and The Arts Learning Continuum. However, the genius of considering the arts as an ecological system lies in the very fact that it invites consideration, questioning, and interpretation instead of being dismissed outright as a "known quantity."

Thinking of creativity as an ecology, or complex system, was echoed by scientist/storyteller Jonah Lehrer, who kicked off the conference with a talk about the science of theatrical experience. Lehrer is most well known for his recent series of critically acclaimed books, [Proust Was a Neuroscientist](#) and [How We Decide](#). [Jonah Lehrer: Creative Insights](#) from [PopTech](#) on [Vimeo](#). He is a regular commentary on the science and ideas radio show, [RadioLab](#) on WNYC.

In his talk, he shared scientific anecdotes about how certain kinds of complexity and heterogeneity in systems can lead to unexpected creativity. One such story was about the invention of the Swiffer disposable mop, which initially started out as an assignment to invent a better floor cleaning liquid. However, after some "out of the box" research, the design team arrived at the realization that it was the mop itself that was the real problem. He also discussed research that linked the higher than normal percentage of patents generated by the citizens of San Francisco to urban density and how much people bumped into each other on the street.

Diversity is an issue that is often discussed at the TCG Conference, however it is unfortunately also reduced to the mono-cultural discourse of "ethnic specific" programming in a season, or marketing campaigns. Although those

discussions are not trivial, perhaps considering diversity conversation *more diversely* from the standpoint of ecosystem, interdisciplinarity, and innovation has benefit.

A story that Lehrer mentioned in his Q/A afterward speaks to this point about two science labs that were attempting to solve the same problem. In the end, the lab that contained scientists from diverse backgrounds was able to solve the problem far faster than the lab comprised of same-background experts. In a Wired Magazine article, Lehrer wrote about the same story:

Dunbar tells the story of two labs that both ran into the same experimental problem: The proteins they were trying to measure were sticking to a filter, making it impossible to analyze the data. "One of the labs was full of people from different backgrounds," Dunbar says. "They had biochemists and molecular biologists and geneticists and students in medical school." The other lab, in contrast, was made up of *E. coli* experts. "They knew more about *E. coli* than anyone else, but that was what they knew," he says. Dunbar watched how each of these labs dealt with their protein problem. The *E. coli* group took a brute-force approach, spending several weeks methodically testing various fixes. "It was extremely inefficient," Dunbar says. "They eventually solved it, but they wasted a lot of valuable time."

The diverse lab, in contrast, mulled the problem at a group meeting. None of the scientists were protein experts, so they began a wide-ranging discussion of possible solutions. At first, the conversation seemed rather useless. But then, as the chemists traded ideas with the biologists and the biologists bounced ideas off the med students, potential answers began to emerge. "After another 10 minutes of talking, the protein problem was solved," Dunbar says. "They made it look easy."

Copyright Wired Magazine, January 2010 Issue

Read the complete Wired article, [Accept Defeat: The Neuroscience of Screwing Up](#). Or watch the video below for a longer talk by Lehrer on [FORA.tv](#)

Have other tips about diversity or thinking outside of the box that we should know about? Send them to us at npac.artists@gmail.com