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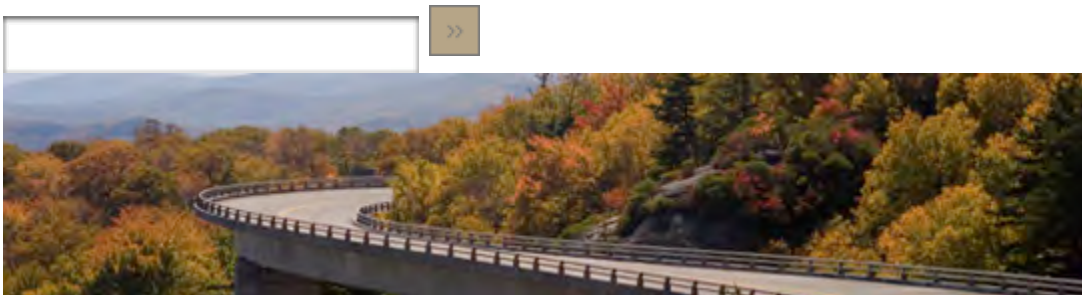
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## **Emerging Issues Debate**

### ***The Creative Urge***

by Carol Strohecker, Director of the Center for Design Innovation

*The IEI editors pose some challenging questions:*

*Is creativity something you are born with or is it learned? If it is learned, is education a contributing factor or is it developed and nurtured?*

#### **Nature/nurture**

Debates like this are tough; the questions seem endless and unanswerable. Despite progress in genetics, neurology, psychology and ecology, we still don't know enough to get real answers to these questions about creativity.

Noam Chomsky and Jean Piaget prompted a similar nature/nurture debate years ago, considering processes of language acquisition and development. Much of that debate remains unresolved – and when intellectual giants cannot find the answers to such deep questions about human knowing, far be it from me to take on the question of whether creativity is inborn!

I do know that even if it is, this point alone wouldn't get us very far in understanding a phenomenon as complex as creativity. Genetic encoding may be enough to get something started, but there's much more to the story. A trait may emerge subtly at first, requiring development in order to become what we'd consider a characteristic. An inclination toward being creative would probably unfold and refine as a person grows through life experience.

#### **Keeping it turned on**

Looking for ways to intervene in this sort of interaction between genetics and environment could mean finding ways to encourage the creative process, but might also mean being careful not to inhibit it.

A few years ago, citizens of Memphis wrote a "manifesto" declaring their commitment to developing a creative community. In it they assert, "Creativity is fundamental to being human and is a critical resource to individual, community and economic life."

#### **More like sex than mimeo**

In ramping up UNC's Center for Design Innovation, I find it helpful to refer to the thinking of far smarter people. Albert Einstein, for example, described creativity as "combinatory play." It depends on having a diverse mix of ideas. The creative mind combines and recombines ideas in a process that is more like meiosis than mitosis: success depends on differentiation and exchange.

The authors of the Memphis Manifesto see diversity as a large-scale imperative, saying we should "resist monoculture and homogeneity." They emphasize that "people of different backgrounds and experiences contribute a diversity of ideas, expressions, talents and perspectives that enrich communities."

At the level of an organization – particularly in a university setting – diversity means including people not just from different cultural backgrounds, but with different kinds and degrees of expertise.

### **Artist, sage, jester: Aahh, Ah ha, Ha Ha!**

Arthur Koestler characterized creativity as interplay among three roles, which might be individuals within a group or facets of a single mind. The Artist synthesizes, informed by intuition and aesthetics. (Brian Clegg says the result would prompt an "Aahh!".) The Sage analyzes and solves problems ("Ah ha!"). The Jester dissects and combines in unconventional ways, yielding results that may seem ludicrous at first, but can get people out of a rut and lead to fruitful change ("Ha Ha!").

Likewise, the Memphis "creatives" advise us to "challenge conventional wisdom." But that can get scary. Margaret Wheatley observes that "the things we fear most in organizations – fluctuations, disturbances, imbalances – are the primary sources of creativity." Erich Fromm also notes the need for bravery: "Creativity requires the courage to let go of certainties."

### **Risky business**

Educators are struggling with the idea that in order to cultivate 21st-century skills and thinking, we need to depart from conventional academic structures and methods. We need new alignments of content and new ways of engaging the minds of those who will shape our future.

Many people say that the paces of technology advancement, information boom, and global economics are changing our world so quickly that educators cannot predict what today's students need to learn. We can guide and support them, but in many ways it will be up to them to assume responsibility for their own learning.

Maybe this reality will serve to bring the slowly evolving edifices of education more in line with what the thought leaders have been saying all along. Koestler describes creativity as "a type of learning process where the teacher and pupil are located in the same individual." John Dewey also places responsibility for learning with the learner:

"The aim of education is to enable individuals to continue their education ... the object and reward of learning is continued capacity for growth." Alvin Toffler agrees: "The illiterate of the 21st century will not be those who cannot read and write, but those who cannot learn, unlearn, and relearn."

Such mantras become mandates for change in our educational practices and environments.

### **Do schools kill creativity?**

Ken Robinson puts the question that bluntly and Einstein is quoted as saying, "It is, in fact, nothing short of a miracle that the modern methods of instruction have not entirely strangled the holy curiosity of inquiry".

The image of the traditional classroom reflects a model of industrial production more so than one for creative inquiry. Our default architectural practices still tend to place chairs in rows like an assembly line, as though students were vessels to fill with knowledge rather than minds for generating ideas.

Maybe Einstein was onto something when he said, "Love is a better master than duty." We'd do well to take his observation as a recipe for educational change. Simone Weil's elaboration brings home the point: "The joy of learning is as indispensable in study as breathing is in running. Where it is lacking there are no real students, but only poor caricatures of apprentices who, at the end of their apprenticeship, will not even have a trade".

David Edwards and Bill Strickland are my favorite educators at the moment: both respect the deep connection between creativity and learning and both strive to grow an organizational culture that challenges familiar boundaries between people, disciplines and ideas.

*Carol Strohecker is Director of the Center for Design Innovation (CDI), an inter-institutional research center of the University of North Carolina. CDI aims to catalyze economic transformation of the State's Piedmont Triad region through design-focused activity based on advanced digital technologies. Constituents include the UNC School of the Arts, Winston-Salem State University and Forsyth Technical Community College, with collaborators throughout the Triad and around the world. For more information see [www.CenterforDesignInnovation.org](http://www.CenterforDesignInnovation.org).*

Do you have ideas on creativity, and how it can be developed or taught? Email us at [institute@ncsu.edu](mailto:institute@ncsu.edu) and be a part of this *Emerging Debate*.

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