Foster Ceating at Vork

veryone has an "out of the mouths of babes" story. My favorite is the time, when passing through the produce section of a grocery store, my then three-year-old daughter Jessica asked, "Is chocolate pudding in season yet?"

That childlike ability to see things in a new perspective—to combine disparate elements in a way that makes sense to the creator—is one of the hallmarks of creativity. But in addition to an ability to see the world from a unique perspective, creativity also re-

quires knowledge and discipline. Picasso was a creative genius, in part because he based his inventive exploration of art on a solid foundation of art principles. Scientists who make radical breakthroughs do so with a solid body of knowledge fueling their inventive leaps.

What is creativity? Can it be learned? If so, how alike is the creativity of artists, scientists, There are ideas yearning to break free.

By Ruth Palombo Weiss

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and businesspeople? According to experts, highly creative people see in new ways and make unusual connections that others miss. They seize opportunities, challenge assumptions, and take intelligent risks. Creative people, who can also be disciplined and knowledgeable, are able to go outside of the traditional ways of seeing and doing things. Often, they create solely because they become fascinated with something. Then they go about exploring with a burning intensity all

aspects of what interests them.

"The creative process involves coming up with new, useful, and unexpected ideas that work," says creativity consultant Ted Coulson. "It's an innovative response to a situation in which there is no one right answer but a multitude of possibilities. The cliché, 'Its only limits are the limits of our imagination' is really true."

Considering the fresh perspective that children bring to almost anything they do, it comes as no surprise that play is an essential part of creativity. Robert Root-Bernstein, co-author of Sparks of Genius, says, "Play returns us to the presymbolic drives of gut feelings, emotions, intuition, and fun from which creative insights stem, thereby making us inventors. When rule-bound work doesn't yield the insights or results we want to achieve, when conventional thought, behavior, and disciplinary knowledge become barriers to our goals, play provides a fun and risk-free means of seeing from a fresh perspective, learning without constraint, exploring without fear."

James Chung, CEO of Beansprout Networks, hires only employees with a "childlike curiosity combined with a sense of order developed through past successes and mistakes." But as a businessman, he cautions that "creativity lives only when you ship and deliver."

In other words, businesses that value creativity are not only interested in new processes, products, and ideas but also in bringing them to the public in an innovative fashion.

So, how can we foster and encourage our own and other people's creative nature? Coulson suggests that people shouldn't wait to be asked. "Go out there and do it," he advises. "Start with your own sphere of influence and responsibility, and trust your ability to create newness."

Says Root-Bernstein, "Give yourself permission once in a while to do some things that you have been 'trained' not to do: Fiddle with your food; stomp in the mud. You can take this advice literally or figuratively. It doesn't matter. Either way, you're bound to break normal habits of action, thought, and perception."

Joyce Wycoff, a co-founder of InnovationNetwork, believes that everyone has the capacity for creativity but that too often it's buried by rules and constraints we learn in school and in the work environment.

"Creativity is doing the impossible," says James Juliano, CEO of E Ink. "A creative businessperson doesn't just take pennies off [the price of] an existing product; he or she gives users something they haven't been able to do before something that will make their lives easier and better."

Are the gifts of creativity innate or

something that any of us can develop purposefully? Coulson and Alison Strickland, who wrote *Wow! How Did They Think of That*? are clearly of the develop persuasion. They say that tuning into one's creativity is a lifelong project that needs constant practice and reinforcement. They're so convinced that creativity can be learned that they see being stuck in a traffic jam as an ideal opportunity to practice the patterns of thinking that are the hallmarks of the creative process.

Other experts say that people engaged in creative activity tend to be highly motivated. Creative people have a strong interest in discovery, although their emphasis may be on the creative process rather than on concrete results. The general consensus is that the more one engages in creative thinking, the better one becomes at it. Ideas produce even more ideas.

Teresa M. Amabile, a professor at the Harvard Business School, notes, "To be creative, an idea must also be appropriate —useful and actionable. It must somehow influence the way business gets done by improving a product, for instance, or by opening up a new way to approach a process."

Amabile says that in addition to expertise and creative-thinking abilities, a third factor—motivation—determines what people will actually do. It is intrinsic motivation, formed by passion and interest, that engages a creative person far longer than any extrinsic motivation, whether a carrot or a stick.

"Intrinsic motivation can be increased considerably by even subtle changes in an organization's environment," she says.

The stages of creativity

Coulson says creativity can be broken down into four main stages: exploring, inventing, choosing, and implementing.

Stage 1: Exploring. This stage helps businesses identify what they want in place of what they have. "This is the most challenging issue, and many companies don't spend enough time exploring it. Once people find the answer to the question, What do we want?, creative ideas seem to flow," he says.

Creativity consultant Arthur Van-Gundy concurs: "We now pretty much know what a creative climate is. The process of how to create and sustain such a climate is more difficult." VanGundy notes that it's especially important to anticipate potential implementation problems and to devise ways to overcome them. Moreover, every company first must decide how it defines creativity and innovation and then fashion the appropriate climate.

Stage 2: Inventing. In this stage, companies primarily need to look at the variety of tools, techniques, and methods they have that might help them break out of tradition-bound thinking. Coulson often uses metaphor—such as a garden, circus, zoo, or beehive—as a way to come up with new ideas. Many times, a great metaphor speaks to what you're working on, and generating a metaphor is itself a creative accomplishment.

Stage 3: Choosing. For this stage, Coulson encourages companies to identify everything that a specific idea has going for it. When those have been exhausted, people need to express their concerns but in "how to solve this problem" language.

Stage 4: Implementing. The final stage of getting creativity to work is how to put an idea into practice. Says Coulson, "You can come up with a great idea, but if you haven't thought about how to implement it, it will die without seeing the light of day."

Creative styles

"One's preferred creativity style is like one's eye color: It can't be changed; it's innate," says Charles Prather, in his book *Blueprints for Innovation*. He defines two creativity styles:

Adaptive problem solving. People with this style prefer to use creativity to perfect the system they're in. They will make any system better, faster, cheaper, and more efficient. According to Prather, that kind of creativity brings a high immediate value to any business because results are seen quickly. Consequently, such people and their ideas are often rewarded and appreciated.

Innovative problem solving. People with this style tend to challenge and choose to change the system they're in. As change agents, they focus on installing a new system rather than patching up an old one. They relish doing research, creating new products, anticipating unarticulated customer needs, and

preserving the business for the future. They don't work in a linear manner but seek novelty.

"For example," says Prather, "often sales and marketing are thought of together. But, in fact, marketing is a change agent and sales is a perfecting agent. Marketing seeks to make customers aware of offerings; sales seeks to deliver on orders. Another example is research and development. Research changes; development perfects."

Creative style can be an invisible yet powerful diversity we can't see in the workplace but controls how we do our work. The problem for many people, according to Prather, is that often our preferred styles don't match the demands of our jobs. Then we have a situation called coping. If your style is one of change and you're in a job that requires stability, you have to alter your behavior to do your job.

"One of the best ways to encourage creativity and innovation in a company is to measure it, to make it part of the review process. If one of your measures is the number of new ideas implemented and people are expected to do that, it will happen," says Coulson.

Root-Bernstein recommends getting employees out of their usual modes of working so that they can look at problems in new ways. One idea is to have regularly scheduled brainstorming sessions with implicit rules.

"Interplay between people is critical in such sessions, and for that to work the interaction has to be on a level playing field," says Root-Bernstein. Everyone on the team must be equal in status and must be either polite or able to shout.

There needs to be time for genesis, and no one can control the idea flow if it's to be productive. Brainstorming isn't about whether what you're coming up with is right or wrong, useful or useless. It's to generate ideas and solutions.

Root-Bernstein also suggests that taking a break from whatever problems you're trying to solve is likely to enhance creativity. "Few people solve a problem while they're actually working on it. People tend to think that the more hours they put into a project, the more intensively they work on it, the more easily they'll solve it. But some problems often get solved when people are working on another problem or are away from work, perhaps exercising. Most creative people work on more than one problem simultaneously."

Happy triggers

Typically, people need a trigger to think up truly unexpected ideas, says Prather. He suggests using triggers to move a brainstorming session along when it gets bogged down.

One trigger is forcing associations between two unlike things. As a result, we're able to generate new ideas that we might not have had otherwise.

Prather also suggests reversing hidden assumptions. "This technique brings to the forefront the hidden assumptions about a problem or situation that [the group] has never bothered to examine, then centers on several of those assumptions and examines what would happen if circumstances were reversed."

Last, Prather suggests coming up with outrageous suggestions—"ideas you would never implement because they are illegal, immoral, wicked, or downright disgusting. To relocate...outside our thinking box often serves as a trigger. Suspending judgement about out-of-thebox ideas is obviously crucial."

VanGundy says, "Forget thinking outside the box. We all think within perceptual boundaries that define reality. Focus instead on what box you are in, whether you should be in another box, and how to get there."

Many creativity consultants say that a group is the most valuable resource for creative thinking. Diverse group members collectively possess knowledge and a variety of perspectives not found in just one person. Unfortunately, traditional brainstorming groups tend not to leverage the potential benefits of the human resources within.

"Diversity of group membership provides different perspectives that, in turn, can help trigger unique ideas. Sameness can breed more sameness," says VanGundy.

Connecting the right people with the right job is a good way to stimulate creativity. It also gins creativity to give people autonomy over the ways they solve problems. Managers can set the goals, but it should be up to the people to figure out how to achieve the goals.

Beansprout Networks CEO James

Chung generates a climate for creativity by employing the right people for particular jobs. He tries to ensure that there's tight alignment between an employee's personal core values and those of the business.

In addition to how Chung thinks about HR, he encourages all of his teams to share in the company's successes. By creating mutually supportive groups with diverse perspectives and backgrounds, he encourages the cross-fertilization that is fundamental to creative thinking. Chung believes that unless company leaders foster a sense of "what you do matters to us," creativity dies.

Chung also fosters creativity by favoring it over the status quo. "We have cross-functional teams, so people sit with each other if they're working on the same project even if they [don't usually work] in the same group. We also encourage employees to step up to the plate. We formalize that with a project board that announces, 'Hey, we need people in such-and-such projects.""

Although creativity and innovation continue to be highly valued by many companies, they, paradoxically, don't always convey that message to their employees. To generate a culture of creativity, a company's core values—its vision, mission, and purpose—must be articulated as a high priority.

Says Coulson, "Creativity is going to happen regardless of what an organization says, but if an organization really values it, it's likely to come out in positive ways. On the other hand, if it's not encouraged, being creative in that setting can be divisive."

A synergistic connection exists between creativity, vision, and purpose, according to Coulson. A meaningful purpose and a clear vision stimulate creativity naturally in people and organizations while focusing on a common goal. At the same time, purpose and vision grow larger and more compelling when born of the imaginations of people thinking creatively.

E Ink CEO Jim Juliano tries to infuse his company's core values into everything it does. When designing the work environment at E Ink, Juliano wanted to encourage a community feeling. He wanted the feeling of sitting at an Italian family's dinner table where "anyone can overhear multiple conversations. When people hear things, cross-fertilization occurs." So, E Ink's workspace is without walls, with the exception of several conference rooms.

Juliano also wanted the work environment to resemble an Italian piazza, so the office spaces are build around a central square. This piazza is the company's Chill Center, with toys, games such as Foosball, and free vending machines. Juliano feels the center encourages people to float freely.

"I bump into dozens of people as I'm trying to grab something to drink, go to the boardroom or even the bathroom. Open space is a requisite if you want to drive creativity. Walls are walls. Privacy is incompatible in a creative business setting."

Research suggests that the most effective group environment for creativity is one in which there is fun, humor, spontaneity, and playfulness. However, creating such a climate in a business setting isn't easy. Encouraging creativity in the workplace requires a permissive atmosphere in which individuality and humor are acceptable. Mutual respect, trust, and commitment must be the norm, says creativity consultant Marian

Reading About Creativity

 Wow! How Did They Think of That? by Ted Coulson and Alison Strickland. Applied Creativity Inc., 2000

 Sparks of Genius, by Robert and Michele Root-Bernstein. Houghton Mifflin, 1999

□ "How to Kill Creativity," by Teresa M. Amabile. *Harvard Business Review*, September/October 1998

 Bluepints for Innovation, by Charles Prather and Lisa Gundry.
AMA Membership Publications, 1995

□ *A Whack on the Side of the Head*, by Roger Von Oech. Warner Books, 1983

J. Their. It's vital to reward employees who question the status quo.

At Beansprout, Chung thinks his "passion for making a difference, to make a dent in the universe" engenders creativity. He focuses on that mission and encourages employees to "walk through walls to get the job done."

In short, leaders need to provide clarity and assistance in focusing creative energy and in giving people a sense of belonging to something that matters.

"Ultimately, we have to take our creativity and reduce it to a commercial success," says Juliano. He acknowledges that although creativity is more fun and is what E Ink likes to reward, he also spends a significant amount of time guiding discussions towards solutions for getting products into the marketplace.

"In a real sense, ideas are the lifeblood of organizations and represent their only sustainable competitive advantage," says Coulson. "The only way to avoid *Why didn't I think of that?* is to think of it first. Creativity is the most critical of all human resources. Without it, there would be little progress, and we would be forever repeating the same patterns."

We all know that how we spend our time matters. Learning how to tap into our full creative energy and potential enhances our effectiveness, personally and professionally.

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