



## Thunk, Pffft, Click, Aha!

Eight months before his solo exhibition in a gallery in Philadelphia, Douglas Repetto, a sculptor and installation artist, was preparing to meet with the curators. He had already settled upon the concept of the work he wanted to make—a machine-driven nest-like environment—but he was still searching for the specifics. Then he pulled out the gallery’s floor plan.

“As soon as I saw that there were three rooms I could use, I knew what I was going to do,” said Repetto, 41, who is also the director of research at Columbia University’s Computer Music Center. “It was as if this vague and complicated idea that was floating around in my head suddenly went thunk, and filtered out, and I saw how the piece would physically exist.”

When Repetto’s show opens this fall, the tri-sectioned work in the gallery will have emerged, at least partially, from that flash of clarity as he examined the floor plan. Call it a spark, call it an aha moment, Repetto’s “thunk” represented a transformational step in his creative process: a shift from not knowing to knowing, the unexpected recognition of a previously indistinct thought.

“Seeking Sparks,” my last contribution to Wendy Richmond’s column, was a response to her request for evidence of creative sparks generated in public conversations between two people. After its publication, Wendy asked me to dig further into the subject, and it got me thinking: What are the triggers for such sparks in our individual work? Can we encourage them to occur? And just how do we experience them?

So I asked artists working in different fields to describe the way they encountered these moments. When I pressed them to be as specific as possible, they’d often pause, as if sifting for words to best articulate the clearly hard-to-pinpoint nature of what they’d felt. Their responses were deeply personal, a collection of anecdotes and analogies filled with awe, appreciation and delight, and peppered with the word “suddenly.”

“Suddenly I can see it. I can hear it,” said Roz Chast, whose cartoons in the pages of *The New Yorker* and other publica-

tions have been making readers chuckle since 1978. “There’s an increasing clarity. It’s like something coming into focus.” “You give yourself over to the work,” said Desy Safán-Gerard, ph.d., a painter who works in Los Angeles, “and suddenly something clicks, and it’s fantastic.”

“Suddenly, it just went pffft—it’s three pieces,” Repetto said.

What is that sudden “it?” To better understand, I researched the work of John Kounios, ph.d., and Mark Beeman, ph.d., professors of psychology at Drexel and Northwestern universities respectively who have been studying the cognitive and neural basis of insight, which is the psychological equivalent of the creative spark. In their 2009 paper, “The Aha! Moment: The Cognitive Neuroscience of Insight,” they defined insight as “a sudden comprehension—colloquially called the ‘aha moment’—that can result in a new interpretation of a situation and that can point to the solution to a problem.” In contrast with deliberate problem-solving strategies, insight occurs unconsciously and emerges as an unanticipated awareness.

When it happens to Roz Chast, she sometimes laughs out loud. Like the time she spotted an advertisement for ice cream cakes while riding the commuter train to her home in Connecticut.

“There was a little girl with a party hat and cute eyeglasses standing beside a cake,” Chast, 57, recalled, “and on the frosting it said, ‘Congratulations on your new glasses.’ It cracked me up. I remember thinking, that’s really setting the bar low.”

But beyond cracking her up, the ad was a spark. It wasn’t long before Chast’s cartoon “Gifts from the House of Low Goals” was published in *The New Yorker*. Not only had she drawn “Special-Occasion Cakes” (with frosting decorated with adulations including “Wow! Only 16 Cavities!”), but T-shirts with messages like “I Survived Conjunctivitis” and a low-bar trophy awarded to “Participant.”

To learn more, I spoke with Scott Barry Kaufman, ph.d., a cognitive psychologist and neuroscientist with a focus on creativity. Dr. Kaufman explained that our subconscious minds are constantly processing, sorting and making associations among

the trove of experiences and knowledge we've amassed. "Most of our creative thoughts are bubbling underneath the surface of consciousness," he said. "What enters our consciousness as an insight is usually an idea that has reached a certain threshold where we are able to recognize it."

Sharon Olds, the author of eleven volumes of poetry, identified this recognition as the moment when her poems are born. "They seem to emerge by attaching themselves to something out in the world," was how she put it.

Recently that something was a total lunar eclipse. "There was one point when I could see the shadow of the earth, our shadow, halfway across the moon," Olds, 59, said, "and it looked so much like the shadow of a large person falling on a smaller person. And I knew right then that it was going to be a poem."

There, the insight, the knowing. "It was on the tip of my mind," she continued, "but I didn't want to think about it too much. I wanted to wait until the whole thing could unfold and be written." Which it was, the next morning, as a yet-to-be published poem titled "Total Eclipse."

Olds, who was the New York State Poet from 1998 until 2000, identified a key component of creative insight when she said, "I know it's important to keep my mind gently floating and not try to force anything."

A flash of insight cannot be summoned, Dr. Kaufman affirmed. "There are studies that show that if you let your mind wander and think about other things, you have a higher chance of coming up with an insight than if you're exerting all your effort and energy on the task," he said. "We underestimate the importance of *not* concentrating directly on what we're doing. It's a fundamental human drive to come up with something creative, but the heart of creativity isn't the conscious mind. In fact, the conscious mind gets in the way."

Dr. Safán-Gerard, 75, understands that, perhaps in part because she is also a practicing psychoanalyst. "At a certain point in the work, you go on automatic pilot," she said of her artistic practice. "You aren't thinking, you aren't aiming for anything, you aren't entirely aware of what you are doing. And then the door opens."

A door opened for her recently in the midst of working on a large abstract canvas. "It dawned on me that I should turn the painting upside down," she said. "After that, I couldn't do anything wrong—every color I picked, every brush I used, was the right one. It was a magic moment."

Repetto, too, finds magic in relinquishing control. "It's like the pieces emerge," he said, "and I step back and see, oh my gosh, I made all these little logistical decisions that were contingent on so many things outside of my control, yet the actual piece is not a random thing I threw together. It's a real work

that has a real connection to all the ideas that I've been thinking about for a long time."

While the arrival of an aha moment cannot be demanded, Drs. Kaufman and Kounios agreed that there are ways it can be invited, through, for instance, a nap or a walk in the park. And the artists I spoke with described working conditions they felt were conducive to sparking insight.

"I like quiet," said Chast, "and a good temperature."

Olds can write in public places, but not in a room with people she knows. "I don't mind if they're in the next room," she said. "I just need a little shell of space."

Dr. Safán-Gerard often paints to music, but for Olds, music competes with her poetry. "The lines want to make their own intervals and sounds," she said. "It would be distracting if I were listening to real music while this word music is feeding through me."

Repetto responds to the givens that come with each of his installations, such as budget, available materials and, yes, the floor plan. For a commission he's working on, a found metal plate is determining the scale of the sculpture. "I could buy a piece of metal of whatever size I wanted, but I'm happier finding something like this that leads the way," he said.

He noted that decision-making in many situations is based on unplanned factors. "Lots of things are the way they are, not because someone specified their design, but because they're reacting to contingencies—to physics, to biology, to geology," he said. "I like working that way—reacting to contingencies—to the contingency of having found this particular piece of metal."

As for precisely defining what the creative spark feels like, Repetto called it "exciting," Dr. Safán-Gerard called it "thrilling," but more explicit words were hard to find, even for a poet.

"I don't know how to describe the sense that something is ready or waiting in the wings," Olds said. "It's something about mind and memory that I don't understand. It's a great feeling, but it's hard to put into words. I mean, how would you describe to a creature that lives underwater what it's like to walk along a balance beam?" **CA**

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*Editor's note: At a time when the aha moment is being investigated through scientific filters, Susan adds another perspective: the artist's direct experience of the creative spark. —Wendy Richmond*