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## Letters

### Creative commentary

I enjoyed Stefi Weisburd's article on creativity ("The Spark," SN: 11/7/87, p.298), but I can't resist adding my own two cents to the discussion. I take issue with psychologist David N. Perkins's list of traits that creative people share. One of them, objectivity, doesn't belong: Objectivity is not part of creativity but only part of *effective* creativity. The other five traits on his list make sense, but all are connected, I believe, to the way creative people respond to the overly familiar.

While all human beings are bored by it, the overly familiar particularly bores creative people. That's why creative people tend to pursue unusual problems, function on the edge of their competence and ignore trivialities like money and fame, as indicated by Perkins. And they strive for aesthetic simplicity and use metaphors to an uncommon degree, two other things Perkins says they do, in order to refine away or fuse what might otherwise be boringly superfluous.

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Cover: This view of supernova 1987A resulted when a NASA computer processed a visible-light image by a tracking camera on the International Ultraviolet Explorer satellite. The computer divided the image into a checkerboard pattern of pixels and applied a false color to each pixel according to its relative brightness. Red, the center of the supernova, is the brightest, followed by green, blue, white, gray and black. (Photo: NASA)



### Departments

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In short, creative people don't share six traits but just one: an exceptionally pronounced abhorrence for the overly familiar.

*Bob Grumman  
Port Charlotte, Fla.*

**Tapping the subconscious** is the key to creativity. My father used to find solutions to his problems in electrical engineering in dreams, quickly reported on waking. In my experience in architectural design, use of the "thumbnail" sketch, done with a crayon really too large for the job, introduced frequent "accidentals," which I believe were communications from the subconscious.

*Geddes H. Jackson  
Phoenix, Ariz.*

**My belief is** that creativity is rooted in the fully unencumbered process of intuition acting on a strong foundation of knowledge and discipline. It is the result of the incomprehensible power of the human brain to sort through vast amounts of data to find relationships between seemingly unrelated objects, concepts, observations and experi-

ences. It is the paradoxical combination of unlearning and learning. I believe that the key to this problem lies within a yet-undiscovered synthesis of Eastern and Western thought processes.

In history, we have observed many cycles of the ebb and flow of creativity. There are probably studies that relate these cycles to the weather, economics, politics and perhaps even sunspots. We have seen theories that claim some synergistic benefit of having numerous genius personalities exist as contemporaries by random occurrence. I really doubt that a psychologist is going to find the answers. Where are the philosophers when we need them? Where are the multi-disciplinarians of antiquity? Where is the renaissance man? They are more likely to find the answers than the "trained experts" of our age.

Our educational system is making a gross error in teaching "how to" in abandonment of the so-called "classic" education. To be creative, we need to learn facts, to learn theories,

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to learn history and to learn of our oneness with all the universe. We must encourage the development of the intuitive process. We should not teach how to think, but explore the history of creativity and allow the individual to internalize the development of the thinking process. We need to fill the well of our mind with information and knowledge and then allow our intuition to be the Pierian spring.

Charles T. Cacciola  
East Derry, N.H.

**In time** it will be recognized that no one has ever created anything. That man thinks he creates is simply a matter of hubris. Instead, certain individuals are destined as instruments to connect bits of phenomena into a bigger picture at a particular moment. The pieces are all there waiting to be discovered as to how they fit into the perfect order comprising the universe. Chaos and chance are words to describe phenomena of which we are ignorant.

Perkins is accurate in saying that "scientists know that creativity has little to do with intelligence, talent or expertise," but only when compared to something much greater. Any implication that such attributes are insignificant, however, would be inaccurate. In fact, talent, defined as natural ability, raises the question of what "natural" consists of. And since it is absurd to think natural ability can be taught, it is more senseless to think creativity can be taught.

Those who discover are impelled to seek answers, for reasons they are unaware of. There is no thought of risk and not the

remotest thought that they will be successful, which helps to explain the frequency of "chance" and revelations that come at odd moments, such as physicist Murray Gell-Mann's slip of the tongue during his lecture. And most certainly, those who discover are different from others in that they are utterly unconcerned with the thought that others may reject their discovery. The knowledge that they are right, and that acceptance is only a matter of time, renders them impervious to negative reactions.

Art and science will eventually be seen to be as closely connected as arms to the body. Both are vital elements of order and its discovery. The word "art" derives from the Indo-European base *ar*, meaning to join or fit together. In this sense, science, in the attempt to learn how and why things fit, becomes art. And when art is seen as the ability to do, make, apply or portray in a way that withstands the test of time, its connection with science becomes more clear.

Sven G. Carlson  
Bloomfield, Conn.

**Weisburd's metaphor** describing the shotgun wedding of the "blushing bride of science and the reluctant bridegroom of art" was itself an epiphany. With the same fervor that drives the prospective marriage of general relativity and quantum mechanics in the Church of Grand Unified String Theories, Western physicists have been trying to marry art and science — C.P. Snow presiding.

Science blushes and art is reluctant because deep in their guts they know their marriage would be misbegotten. Each ap-

proaches ultimate reality from opposite ends of the universe. Gell-Mann deduced his "ah ha" by reducing a universal phenomenon — isotopic spin (I) — to I = 1; Picasso induced his by cubing a nose into a universe.

Why not leave it at that? Each approach describes what is there and what isn't as a consequence of the journey. If, to be satisfied, we need an overarching supersymmetry, let it be our informed appreciation of both.

Rocky Curtis  
Alexandria, Va.

**In the article** about creativity, Jacob Bronowski is quoted as saying of the cave painters of Altamira, "and the men who made the paintings were doing the same thing [as the men who made the flints and knives] — anticipating the future as only man can do, inferring what is to come from what is here."

Isn't it true that those fellas drew only what they saw — the bison, running deer, other hunted animals and the human hand? They were not looking to the future, but rather were recording the present.

Jo Frohbieter-Mueller  
Evansville, Ind.

Bronowski argues that the paintings made hunters aware of dangers they would have to face in the future, and in this way directed the mind from what was seen to what could be inferred or conjectured. "For all its superb observation," he writes in *The Ascent of Man* (Little, Brown, 1973), "the flat picture only means something to the eye because the mind fills it out with roundness and movement, a reality by inference, which is not actually seen but is imagined."  
— S. Weisburd

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