

Creativity Tempered by Wisdom: Interview with Robert J. Sternberg

Robert J. Sternberg

Cornell University, USA

E-mail address: robert.sternberg@cornell.edu

Izabela Lebuda

University of Wroclaw, Poland

E- mail address: izabela.lebuda@uwr.edu.pl

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ABSTRACT

In the interview with Robert J. Sternberg, one of most prolific creativity researchers, we discuss his career, main areas of research interest, chosen research methods and share his thoughts about the future of research on creativity and effectiveness in scientific work.

Robert J. Sternberg is Professor of Human Development at Cornell University and Honorary Professor of Psychology at the University of Heidelberg, Germany. He was formerly IBM Professor of Psychology and Professor of Management at Yale University. He obtained his BA from Yale University, his PhD from Stanford University and he holds 13 honorary doctorates. Professor Sternberg has won the James McKeen Cattell and William James Awards from the Association for Psychological Science and the Grawemeyer Award in Psychology.

The interview is one in the cycle of structured interviews with creativity researchers who have made an eminent contribution to the contemporary scientific understanding of creativity.

Izabela Lebuda: *Please tell me about your professional career; how it happened that among many areas of psychology you took up the psychology of creativity?*

Robert J. Sternberg: I have made a career studying things that are challenging for me. If I find something easy, it is hard for me to understand why anyone else would find it challenging. Since I find most things challenging and have failed at so many things during

the course of my life, I've had plenty to study. I have had various incidents in my life that led me to question my own creativity, and they motivated me better to understand what is "wrong with me." Early during the summer after my first year in graduate school, my undergraduate mentor, Endel Tulving, was visiting the Center for Advanced Study in the Behavioral Sciences. He introduced me to a group of colleagues there. They asked me what I had done in my research and I told them about my work on negative transfer in part-whole and whole-part free recall (snore!). Then they asked me what I was going to do next. I stumbled. I didn't know. I wanted to study intelligence, but I didn't yet know how. I could see the sympathy in their voices as they realized they were talking to a "one-idea wonder" type of a guy. Later during graduate school, I had my first useful idea for studying intelligence and I was pursuing it, when Gordon Bower, my graduate advisor, told me that Jim Greeno was doing work on analogies and Earl Hunt was doing cognitive work on intelligence. And I thought that was just great, really great-all my creative ideas might have been creative-a few years ago-but now I thought I had been scooped, although that later proved not to be the case. Those were events in graduate school, but I've had countless similar events since then, up to the present, where I came out wondering why I even bother to continue to do research at all. The most important skill for creative success in academia is resilience, because there will be so many times you may feel like giving up in despair. If you are creative, and you defy conventions, people will go after you-and sometimes you may go after yourself, disparaging all you have done-and you have to learn to deal with it.

Izabela Lebuda: *Could you tell the main areas of your research interests and chosen research method in the psychology of creativity? If yes, how did they change over your careers?*

Robert J. Sternberg: Some theorists start with an idea and stick with it. E. Paul Torrance, for example, spent much of his career following up on his early work on the measurement of creativity. I usually don't stick so much with theories as I first present them, or rather, what was earlier "the theory" later becomes a small part of "the theory." Certainly, that has been true of my work on intelligence. In the case of creativity, my first paper in the field was in *JPSP* 1985, comparing folk conceptions (implicit theories) of creativity among people in different fields of endeavor to their folk theories of intelligence and wisdom. But I could see that that approach would not go as far as I had hoped, in that it told us what *people* think creativity is, not what creativity itself is. By 1988, I edited a book, *The Nature of Creativity*, in which I was proposing a three-facet model of creativity, which basically integrated intellectual, stylistic, and personality facets of creative thinking and performance. But I knew that that model had the feeling of a laundry list rather than a real theory; So, in the 1990s, I worked with my graduate student (at the time), Todd Lubart,

and we came up with the investment theory of creativity, according to which creative individuals buy low and sell high in the world of ideas. This work eventuated in a book, *Defying the Crowd*, published in 1995. I also published, with my graduate student at the time, Wendy Williams, a book on teaching for creativity-*How to Develop Student Creativity*-that in large part was based on the investment theory. But the investment theory did not specify how there are different ways of defying the crowd, and by 1999 I published an article on a propulsion theory of kinds of creative contributions. James Kaufman and Jean Pretz, graduate students of mine at the time, and I published a book on the theory, *The Creativity Conundrum*, in 2002. I stuck with those theories for a while as, in the early 2000s, I turned my attention to how to measure creativity in contextually appropriate ways, culminating in a book in 2010, *College Admissions for the 21st Century*. And then, in 2018, I published in *Psychology of Aesthetics, Creativity, and the Arts*, my most recent theory, the triangular theory. This theory asserts that creative people not only defy the crowd, but also defy themselves (i.e., they are willing to let go of ideas they once may have cherished but that no longer work for them or perhaps for anyone else) and defy the Zeitgeist (i.e., they can discern their own preconscious assumptions-things they “know” to be true--and falsify them as necessary).

After the work I did in the late 1970s and early 1980s on what I called “componential analysis,” I don’t think I ever again became closely identified with any particular method of research. Rather, I tried to use methods that fit the problems I studied. I think we should fit our methods to our research questions rather than our research questions to our methods. Too many scientists pick a method and then look for problems to study with the method. They are like the carpenter who, having a hammer, looks for things to hammer with it.

Izabela Lebuda: *Why do you think it's worth researching creativity?*

Robert J. Sternberg: Our societies’ preoccupation with “intelligence” as traditionally defined has been, largely, a disaster, or at least so I argue in a book I am finishing up, *Adaptive Intelligence*, and in an article that was recently published in the Journal of Intelligence, *A theory of adaptive intelligence and its relation to general intelligence*. High IQs, and sometimes, creativity, have brought us all the supposedly wonderful discoveries and inventions that may, sooner or later, destroy humanity through global climate change, air pollution, water pollution, antibiotic resistance in bacteria, and the processed foods that have fueled an obesity epidemic. Adaptive intelligence, in a nutshell, includes the analytical intelligence measured by IQ tests and their proxies, but also creativity tempered by wisdom. I would hope that the world would recognize, at the very least, the importance of

creativity tempered by wisdom to get out of the messes we have created. But if we do not understand creativity and its relation to intelligence and wisdom, then, even with an emphasis on creativity, we may find ourselves in the same position that we are now in because of our mindless over-reliance on IQ tests and their proxies. If creativity ever comes to the fore, and the best we have to offer is scores on the Torrance Tests, then truly we will leave no viable future for our children and their children. We owe it to future generations to do better than we have done in the past, the topic of my forthcoming book, *Positive Creativity*.

Izabela Lebuda: *What currently do you see as the most crucial and most fascinating areas of research on creativity?*

Robert J. Sternberg: I think there are several. I won't mention investigators' names for fear I will leave out many of those contributing the most in each area.

Theory-testing. The greatest problem, I think, in much creativity research is that it is largely atheoretical. Someone shows that X correlates with Y, or that such and such a treatment A results in a larger effect than some other treatment B. But it is not clear what the theory is that would underlie any of this-beyond the initial, sometimes ad hoc, hypothesis. *Why* should one expect X to correlate with Y or that A should have a larger effect than B. You end up with a lot of empirical results that do not have any clear meaning. In the field of creativity, this is particularly problematical, because we do not have any single widely accepted theory. This lack of theory has been the bane of the intelligence field, where there are thousands of studies showing, again and again, that *g* correlates with yet something else. Researchers showed by roughly 100 years ago that *g* correlates with lots of stuff. I believe that what we need is to understand what that means.

Measurement of creativity. I think the field of creativity research can take a lot of pride in the progress it has made in recent years. When I started out as an academic, back in the Dark Ages, the field was almost uninhabited. Today, it has several journals devoted entirely to it. But I think that, like the intelligence field, it has been generally unimpressive in the development of its measurements. Like the intelligence researchers, many in the field of creativity research and assessment are still using tests from the early to mid-20th century. The Torrance Tests were first published in 1966 and were a remarkable innovation for their time. But that was more than half-a-century ago, and many of them were based on work J. P. Guilford did even earlier. We can only get good tests of creativity if we have a theory of what it is that we are testing and, as I said earlier, the field of creativity could use more actively competing and current theo-

ries. I believe researchers should be actively seeking better ways to measure creativity, not just contenting themselves with measures from the distant past.

Teaching for creativity so that schools actually will do it. There are lots of books and articles on how to teach for creativity, some of which my colleagues and I have written. These days, the greater problem is to figure out how to get teachers and schools, in general, to introduce teaching for creativity into their curriculum. Schools in some countries, including my own, are fixated on test scores. Whatever those scores may be indicators of, creativity is not one of those things. Ronald Beghetto and James Kaufman have even written a book about teaching for creativity in the Common Core classroom, but I have no idea how many school systems actually are teaching, based on the book. The only theory I have seen widely used in classrooms has been Bloom's taxonomy (and perhaps Gardner's theory of multiple intelligences), but creativity is not necessarily central to either, at least as the theories have been implemented. There are so many roadblocks in schools to teaching for creativity-if we cannot overcome them, how can we expect to produce a next generation of creative thinkers?

Positive and negative creativity. For the most part, we in the field of creativity research recognize creativity as a positive thing. But a number of investigators have pointed out that it is not always positive and actually can be negative. This research on the so-called "dark side" of creativity shows that creativity can be and has been misused. How great is creativity when it is applied to scouting sites for terrorist attacks or for ripping off customers by giving them substandard products whose quality is degraded in ways that are not noticeable? I believe researchers and others increasingly are realizing that creativity is positive only when it is tempered by wisdom-a desire to seek a common good. Otherwise, even well-intentioned creativity can go astray, as we have seen with companies such as Google, Facebook, and, of course, the notorious credit bureaus. Whatever their original intentions, things went horribly wrong, at least with regard to privacy for users.

The problem of the creativity police. I recently read a book, *The Memory Police*, by Yoko Ogawa. In the book, uniformed memory police are responsible for things disappearing from the environment. Those who continue to remember the things that disappear from the environment themselves disappear. Of course, in the real world, there are no memory police, at least that we are aware of. But there are creativity police. They just are much cleverer than Ogawa's memory police. They disguise themselves, as they have since the time of Socrates, as righteous do-gooders, saving everyone from the evil of creative thinkers, who, they claim to show, are monsters in disguise-misguided,

delusional, dishonest, blah blah blah. Moreover,, researchers these days need to worry about all kinds of quantitative indices-the impact index of the journal to which they submit, how many times their work will be cited, their h index, their i10 index, whether they repeat themselves (as I sometimes have), whether they are creating a distinctive brand as measured by Twitter followers or whatever, how many visitors their website is attracting, and on top of it all, whether they are going to attract a replication army that may bring them down, and more. All of these things-citation indexes, replication armies, and the like, have positive aspects, but with so many forces to look out for, it is hard to think about being creative-just too much of a risk. I think it is so much harder to be creative today than it was when I started my career, for reasons I predicted in the mid-1980s. We admit people to graduate programs in psychology largely because of their memory and analytical skills, not because of their creative skills. Then we expect them to be creative, and any number of them aren't because they never learned how to be. So, they build careers that capitalize on their analytical skills, which can include building themselves up by knocking others down. Remember, none of this is new. Socrates was forced to drink hemlock because he "defied the crowd." So, what are we going to do about it? That's for the younger generation to decide, and I hope they decide soon.

Izabela Lebuda: *What do you think, the direction in which the psychology of creativity will develop?*

Robert J. Sternberg: I do not see creativity research moving in any one particular direction. This is fortunate. You always want competing directions and competing theories and paradigms. Otherwise, you end up in the situation of intelligence research in the 20th century (and much of it even today), in which researchers have argued over how to rotate factorial axes and viewed, as different, theories that all, at some level, have said more or less the same thing (as pointed out by John B. Carroll in his 1993 book on *Human Cognitive Abilities*). Researchers were trapped by their Zeitgeist-many still are-and refused to see beyond it, arguing that there actually was nothing beyond it-a variant of a closed-universe theory. A particularly important thing for the psychology of creativity I think, is understanding how sociocultural forces shape what we consider to be creative-for better or worse. How much great work is there out there that people just are not ready to recognize as creative? And how much crap are they lauding as creative because, well, it's the next step in some preferred paradigm?

Izabela Lebuda: *You are the one of the most productive creativity psychologists. Can you share your advice, principles of effectiveness in scientific work?*

Robert J. Sternberg: Do what you love. If you succeed, don't turn into a jerk and certainly don't be one in trying to succeed. Don't seek success at others' expense. Remember that if you do succeed, you will make a few friends and lots of enemies. Don't let the critics get you down, at least, not too much. When everyone else seems to give up on you, don't give up on yourself. Make your mistakes, learn from those mistakes, and move on. Don't take yourself and your work so seriously that you cannot see the flaws, some of them obvious to everyone else, in what you have done. Don't take things personally, even if they hurt you personally. As Harriet Tubman warned slaves who were being pursued by their supposed "masters" and their attack dogs, "Keep going!" Just keep going.

Corresponding author at: Robert J. Sternberg at Cornell University, USA.

E-mail: robert.sternberg@cornell.edu

