COLUMN: RETHINKING TECHNOLOGY & CREATIVITY IN THE 21ST CENTURY

Navigating the Tensions Inherent in Understanding Creativity: An Interview with Mark Runco

Carmen Richardson¹ · Punya Mishra¹ · The Deep-Play Research Group

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The opposite of a fact is falsehood, but the opposite of one profound truth may very well be another profound truth—Niels Bohr

The most important part of creativity is creative potential, not creative performance—Mark Runco

The Deep-Play Research group at the Colleges of Education at Michigan State University and Arizona State University includes: William Cain, Chris Fahnoe, Jon Good, Danah Henriksen, Megan Hoelting, Sarah Keenan, Rohit Mehta, Punya Mishra, Carmen Richardson, & Colin Terry. We would like to thank Dr. Runco for his time in the interview as well as the review of this piece prior to final publication. Address all communication to Punya Mishra: <punya@msu.edu>.

We (the Deep-Play Research Group) have been writing an ongoing series under the broad title of "Rethinking Technology and Creativity in the 21st Century." Recently, as a part of this series, we have been interviewing scholars and thinkers who study creativity. Our goal is to make their work and viewpoints accessible to a wider audience, as well as to connect what they do to some of the themes that underlie this series. We continue this series here, with an interview with scholar and writer Dr. Mark Runco.

Introduction

Dr. Mark Runco is currently the Distinguished Research Fellow of the American Institute of Behavioral Research

Punya Mishra punya@msu.edu

The Deep-Play Research Group

¹ Michigan State University, East Lansing, MI, USA

and Technology, a Professor at the University of Georgia, and an internationally recognized scholar of creativity. Dr. Runco first became interested in creativity as a college student studying literature and psychology, through his fascination with science, scientific methods, cognitive creativity, and creative processes. When Dr. Runco began studying creativity over thirty years ago he was advised not to do a dissertation on creativity, because it was not considered an official field or amenable to scientific study. This did not deter him, and Dr. Runco, through his dissertation and subsequent research, has become one of the preeminent scholars in the scientific study of creativity. He founded the Creativity Research Journal in 1988 to provide an outlet for scientific research on creativity in order to "establish the field itself as a scientific field, admittedly a social behavioral science, not a hard science, but a science nonetheless." Dr. Runco believes that there has been significant growth in our understanding of creativity and creative processes. The study of creativity is increasing and there are now several major journals devoted to publishing creativity research.

More recently, however, Dr. Runco has indicated some concern that the field may have gone too far in its search for scientific legitimacy. He suggests that scholars should be wary about views and types of creativity that are easy to observe or measure. In his view, the study of more complex forms of creativity, such as latent creativity, creative potential, and everyday creativity can be scientific in ways that speak to the field, while also allowing us to study what is often deemed too difficult or messy to explore. In some sense this tension between the "science" and the "magic" of creativity is something that is inherent to the field itself, and symptomatic of other challenges faced in this field (Mishra, Henriksen, the Deep-Play Research Group, and 57 2013). In this article, we discuss Dr. Runco's beliefs about creativity, the importance of creative potential, the role of technology in both supporting and inhibiting creativity, and the hopes and concerns he has for the future of the field. It is clear that the inherent tensions that Dr. Runco faced when he first began studying creativity still exist today. It is also clear that creativity remains a multifaceted area of study, one rich with dichotomies that Dr. Runco and others seek to understand and harmonize.

Beyond a Standard Definition of Creativity

Dr. Runco has written about the history of what is viewed by many as the standard definition of creativity (Runco and Jaeger 2012). First described by Stein (1953) and Barron (1955), this standard definition involves two components: originality and usefulness. According to Dr. Runco, originality, novelty or unconventionality is the most obvious component of any definition of creativity. Conversely, something boring, mundane, commonplace, or conventional is not original and thus not creative (Runco and Jaeger 2012). So, the first key component in the standard definition is originality, but that alone is not enough. For something to be creative it must also be effective. It must have some aspect of usefulness or value. Random processes will often generate things that are original or unique, but without the product being effective (or valued/useful) in some way it cannot be considered creative.

The problem with the two-part standard definition, however, is that it can be too objective, and potentially misses the range and depth of possible creative endeavors. While the standard definition can be easily used to look at famed works or creators whose creativity is unambiguous (Michelangelo or Mozart, for example), a rigid adherence to this definition, argues Runco, may leave important parts of creativity ignored or unexamined. There is a dichotomy between the standard definition, which can be applied scientifically, and a more nuanced definition, which allows for the study and understanding of other parts of creativity. Dr. Runco recognizes the element of authenticity in his own definition. This is the part of creativity that is personal, and not easily compared to normative standards (Runco 2003). It is authentic to the self, and can lead-as is the case for Eastern philosophers such as Confucius-to self-enlightenment and self-understanding. Along the same vein, Dr. Runco asserts there is an important aesthetic component to creativity. This is consistent with our own work, in which we define creativity as NEW: Novel, Effective, and Whole (Mishra et al. 2013). The Whole in our definition seeks to capture some of the aesthetic, contextual elements that Dr. Runco speaks of.

Dr. Runco studies everyday creativity, children's creativity, and creative potential; and in that context, spontaneity can also be seen as an important part of a definition of creativity. In essence, Dr. Runco believes that a more nuanced definition of creativity goes beyond originality and usefulness to include consideration of the varied contexts in which creativity takes place. This nuanced expansion of the standard definition helps us understand creativity in new ways that are more representative of its role in the real world.

Creativity and Education: Potential vs. Performance

Runco argues that, when we place creativity in an educational context there are implications for the ways we define, value, and support it. When looking at creativity from an educational perspective, it is essential to believe that everyone has creative potential. This sits in opposition to the idea that creativity is something that must be observable, score-able, or testable to be recognized. The contrast between creative potential and manifest creativity, and the valuing of creative potential, is essential to the study and support of creativity in education. The notion that people have unused creative potential means that experience, education, and effort can have a catalyzing impact. It is important, especially for teachers, to recognize that the socalled "art bias," is a myth. People often simply equate creativity to artistic talent, and assume that if you are not artistic you are not creative. This is not the case, because creativity can take many forms and spans across all disciplines. It is essential to ensure that teachers and administrators have an accurate understanding of the broad nature of creativity. This in and of itself is a challenging tension, because it calls for a change in misguided beliefs and assumptions that are widespread and engrained. Much creative potential will be overlooked if we are only supporting and recognizing the types of creativity that can be easily seen, quantified, and tested. In missing the rich range of creative potential, we would be left with a narrow view only focused on artistic or expressed creativity, rather than a holistic view in which creativity exists in multiple ways and forms.

The support of creativity in schools is impacted by how much value is placed on it. It is vital for people to believe that creative performance, creative potential, and creative effort are important. The students and children of teachers and parents who value creativity will internalize those values, and direct focus and energy toward creative work and thinking. Dr. Runco emphasizes that our culture as a whole needs to value creativity. The more we value creativity, innovation, and entrepreneurship, the higher the investment, not only in terms of money but also in terms of people and time.

Teachers play a necessary, albeit challenging, role as they strive to support creativity in a system that was designed for conformity (Robinson 2011). Some of this responsibility falls on policymakers because approaches to accountability, standardized curricula, and the impact of high stakes testing can be extremely damaging, and are often out of teachers and administrators' control (Wagner 2010). There are also constraints in classroom structure and resources (e.g. one teacher with 30 or 40 students). The nature of creativity involves autonomy and independence of thought - things that are almost incompatible with the structure of many educational systems. Dr. Runco believes navigating this tension to be a matter of compromise: What can we do given the system we are in to still appreciate creativity? It is difficult and frustrating but when administrators or principals recognize the importance of supporting creativity there can be options and flexibility. It is often a matter of finding what parts of creativity might fit in the curriculum or the school environment. Teachers in classrooms may work to negotiate this tension between a system that is in many ways anti-creative, and what they can do to support their students' creativity. Teachers can break students into groups to support autonomy and independence. A teacher can design assignments or projects for flexibility and choice. In identifying what creativity requires (e.g., intrinsic interest, autonomy, flexibility, different perspectives, original thought, divergent thinking, problem discovery, and self-expression), we can consider how to incorporate them into curricula, assignments, and learning environments.

Technology and Creativity: Openness vs. Conformity

Dr. Runco believes technology to be something of a doubleedged sword, able to impact creativity in both positive and negative ways. On the one hand technology has great potential towards influencing and facilitating creativity. Creativity is supported by information and knowledge, which the Internet can provide almost instantly. Dr. Runco points out that the idea of "being creative" used to be centered in fields like poetry, drama, and literature; now technology opens doors to new domains. This also allows more opportunity for people to share their work broadly and connect and collaborate with others (Henriksen, Hoelting, and M. and the Deep-Play Research Group 2016).

Technology, though, can also have a negative impact on creativity. Dr. Runco is concerned by the conformity or groupthink that is implied by much of the content on the Internet as well as various other forms of technology. For example, on Facebook, Twitter, or most social media there is a lot of trending. What does trending mean? It means a lot of people are thinking about it. As Dr. Runco says, "So, if a whole bunch of people are thinking about it then it's not very creative, because creative things are unique and original."

Dr. Runco also believes that the Internet is inadvertently supporting and maybe even increasing social pressures which is one of the worst things possible for creativity. There is much socialization, enculturation, and societal pressure towards conformity that is compounded by technology. And this starts at an early age. Many children have a 4th grade slump because they try to fit in more and they start inhibiting their own self-expression. In short, technology can offer a space for creativity, along with the tools and building blocks to create and share, but on the flip side it can also increase pressure to conform.

The Future of Creativity Research: Objectivity vs. Subjectivity

Dr. Runco expressed concern that the study of creativity may become too objective and limiting. In the interest of science, there is a push for reliable and objective data. That can limit the field to only the most obvious examples (e.g. famous creators) because their creativity is unambiguous and clear. For the first 15 years of his career, Dr. Runco fought to make creativity a science. He has spent the past 15 trying to back things up and suggest more nuance and range, fearing too strong a push for objectivity loses sight of the reality and subtleties of creativity. A prime example of the dichotomous challenges and nature of the field lies in how to respect the scientific method and seek generalizable and reliable findings, but at the same time recognize that creativity has subtle and subjective aspects that make it unlike many other areas. The task is to find a way to be scientific, but at the same time to respect the uniqueness of creativity.

Another problem identified by Dr. Runco is that the federal government is doing very little, almost nothing, for the support of creativity in the form of awards and grants. Grants are moving away from the government to private sources of funding. According to Dr. Runco, "It makes no sense: everyone knows that creativity feeds the economy and leads to advancement, so why aren't there more grants and funds supporting creativity and research on it? There are companies like LEGO, Destination Imagination Disney, Red Bull, Fisher Price, and Crayola that are spending money on researching creativity and doing an admirable job."

The National Science Foundation rarely funds work on creativity because of a lack of objective indicators. However, if the only focus is on creativity that is manifest and easily observable, we do not have the opportunity to understand creative potential. As Dr. Runco states, seeking support for the study of creative potential "is a very difficult thing to do because you are asking policymakers to invest in something that you can't see or measure very well. In fact it really boils down to risk tolerance and taking the long view. Instead of looking at people who are exceptionally and unambiguously creative right now, let us look at the entire population, all 330 million, who have creative potential. We should work with them, and realize that that's going to pay off in a couple of years." Patience, risk tolerance, and creative potential are crucial, in different ways, to the future of the field.

Dr. Runco also believes that there are some new areas of creativity that need to be studied more. One is creativity in the everyday domain. This is a kind of creativity that is expressed outside of all fields, and is in contrast to the type of creativity that is typically recognized and studied. It is the kind of creativity that a parent might need to get the kids to school, to get to work, and to get everything done during a challenging day; or that a student might need to cope with balancing papers and exams with a job. It is tied to coping, adaptability, and creative problem solving and it is not in any formal domain. It happens when someone finishes his or her day and looks back and thinks, "Oh boy! I really did it, I used my creativity and I dealt with all the hassles and coped with all the problems thrown at me." Dr. Runco firmly believes that creativity is related to quality of life. There are people who do not produce creative things, but have a higher quality of life because of their creativity. Life is richer, they have more fun, and they are healthier because of it. Is creativity always in a formal field? No, sometimes it is an everyday phenomenon.

Conclusion

Dr. Runco has spent over 30 years contributing to the field of creativity and the field has grown widely because of his work. In helping to establish creativity as a field of scientific study, Dr. Runco has paved the way for a future that has the potential to examine creativity in new and important ways. Rethinking the very way we define creativity will open the doors for more nuanced and complex investigations. At the center of this rethinking is the need to support creative potential and in turn

create the kind of educational system and structures that allow teachers the freedom to support student creativity. The future of the field depends on our willingness to take risks, to open ourselves to new ways of thinking, and to dive into the complexities of creativity. As a society, we must recognize that creativity is a phenomenon open to everyone, and is related to the quality of our everyday lives.

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