



# A Pragmatic but Hopeful Conception of Creativity: a Conversation with Dr. Barbara Kerr

Danah Henriksen<sup>1</sup> · Punya Mishra<sup>1</sup> · the Deep-Play Research Group

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*Well-behaved women seldom make history.*  
~ Laurel Thatcher Ulrich (though often mis-attributed to Eleanor Roosevelt, Marilyn Monroe or Kim Kardashian)  
*If we really want education to be friendly to creative kids, to all kids—we need to allow kids to progress at their own rate in the domains where they excel or are interested, or get help where needed.*  
~ Dr. Barbara Kerr

## Introduction

Creativity is a varied, rich and multifaceted construct, and understanding this richness requires diverse theoretical and research approaches. This article series explores creativity across the disciplines, from design or business to psychology, writing or the arts—through the perspectives of notable creativity researchers. The diversity of our interview subjects has offered both unique nuances and distinctive views, and also common themes—providing a complex, detailed and emergent picture of creativity scholarship. Adding to the complexity and richness, we also consider the relationship of technology to creativity, specifically in educational contexts.

This article adds another perspective to this picture, focused on the work of Dr. Barbara Kerr. Dr. Kerr holds an endowed chair as *Distinguished Professor of Counseling Psychology*, and is co-director of the *Center for Creativity and Entrepreneurship*

in Education at the University of Kansas. She is an American Psychological Association Fellow, with her Ph.D. from the University of Missouri in counseling psychology. Dr. Kerr utilizes innovative counseling and therapy approaches to better understand the relationship of creativity to gender, privilege, and talent development. Her research has focused mainly on the development of talent, creativity, and optimal states. She has trained psychologists and counselors to be talent scouts who provide positive, strengths-based services. Dr. Kerr founded the *Guidance Laboratory for Gifted and Talented* at the University of Nebraska; she was Associate Director of the *Belin-Blank National Center for Gifted and Talented* at the University of Iowa; and was co-director of the *National Science Foundation* projects for talented at-risk girls at *Arizona State University*. Dr. Kerr is also author of *Smart Girls in the Twenty-First Century* and over one hundred articles, chapters, books and papers in the area of giftedness, talent, and creativity. She currently directs the *Counseling Laboratory for the Exploration of Optimal States (CLEOS)* at the University of Kansas, a research-through-service program that identifies and guides creative adolescents.

Dr. Kerr's work has explored creativity and giftedness through a diverse scholarly trajectory. In this interview, she discussed how she studies creativity in ways that offer a view of creative personalities and development, as well as the gender and creativity relationship, and structural influences on creativity. We also explored educational approaches to support creativity, and how creativity and technology intersect in educational futures.

✉ Danah Henriksen  
Danah.Henriksen@asu.edu

Punya Mishra  
punya.mishra@asu.edu

<sup>1</sup> Arizona State University, Tempe, AZ, USA

## Creativity in Personality and Professional Talent Development

Dr. Kerr's interest in creativity stemmed from her early fascination with creative work, through her own aspirations and creative dabbling. As she noted:

I can't remember a time that I wasn't interested in creative people, since I wanted to be a writer when I was young. But I learned I was not the best creative writer in the world, since my all characters sounded exactly like me. I realized I may never be a great writer, artist, or musician—but I could spend my life around creative people, if I studied them and provided psychological counseling.

Studying creativity became a way to immerse herself in it across the disciplines to investigate, understand, and support it. She views therapy as both an art and a science, requiring openness and interpretation alongside analysis and knowledge of the human psyche. She has frequently provided psychotherapy to creative adolescents, which she says is, “The most challenging and exciting work that anybody can possibly do.”

Her prior experiences have developed insight into creative personalities across different fields. For instance, for over 15 years she volunteered as a therapist at a writer's workshop, and also served as a psychologist for architects as the *Frank Lloyd Wright* school *Taliesin West*. She has worked with artists, musicians, engineers, and other creative professionals as a therapist. In providing psychotherapy she observed what research is now confirming—that creative personality is often domain-specific. Relatively few personality traits consistently correlate to creativity—with openness to experience being the most reliable correlate of creative personality (Prabhu et al. 2008). So, despite the notion of a “creative type” of personality in popular culture, in reality, creative personalities differ across professions. For instance, she notes:

Writers tended to have more neurosis than other groups. They are more willing to talk about their psychological issues, perhaps because they're narrators. Often people are drawn to a career in writing because they have such a strong need for autonomy and a tremendous capacity to empathize with other humans ... Young creative writers, at 16 years old, already have high openness to experience, incredibly high need for autonomy, pretty low conscientiousness—that is they're not rule followers.

In contrast, Dr. Kerr found, via detailed research interviews with 30 of the most patented U.S. inventors, that, “The inventors were actually much more well-adjusted than writers or artists. There was one way in which they were similar to musicians. They were highly conscientious and detail-oriented, whereas the artists and writers were less so.”

Although creativity is often associated with the arts, it exists in a range of human-centered fields of work. Creativity, Dr. Kerr argues, emerges differently in specific groups that she has studied. For instance, her work with indigenous leaders/

healers showed that they had a set of unique characteristics, as she stated, “They [indigenous leaders/healers] were more like artists than they were like scientists.” But they also demonstrated the common trait of openness to experience that all creative types demonstrate:

These creative personalities, they're all open to experience. All of them. But they have differing kinds of moods, different interpersonal skills, some being very introverted—that's musicians for the most part—and some being very extroverted, such as the ceremonial leaders and spiritual leaders of indigenous people.

Openness to experience is a common correlate of creative personalities, but other variables differ by characteristics, requirements, and affordances of different professions. There is a transactional-developmental dynamic to this, because while people are drawn to a profession based on how it aligns with their own tendencies—the demands of that profession can ultimately change or reshape personality along the way. Dr. Kerr described this among creative writers:

Writers get involved in writing programs or workshops, and then enter into publication. That's when other aspects of the personality become shaped by the profession. They become much more conscientious as they deal with rejection after rejection; and we see a reduction in substance use over time. Most people mature and become less impulsive in growing older, but with writers the change is much more obvious.

Given her interest in formative aspects of creative personality, Dr. Kerr has also done significant work with creative youth. The key challenge with this group is often in having to give advice that is the opposite of what they typically receive:

In school they're told to be good at everything, to be well rounded, have lots of friends, be popular and athletic. We almost tell them the opposite. We discuss the importance of prioritizing, giving 100% to activities that relate to their creative flow, to their passions. Giving 80% to things they absolutely must do, like get enough A's to get into an institution that will propel their creative goals. Give 50% to things that are nice but not necessary, and give 0% to things that are not going to propel them and may obstruct them. Being well rounded can be a trap, especially for women. We tell them how to avoid those traps.

This gender related aspect of creative personality and professional success leads into an area of research that Dr. Kerr is known for—in understanding creativity, gender and structural inequities.

## Creativity and Gender: Structural Inequalities and Implications

Dr. Kerr's early career work in creativity focused on women and gender roles—covered in her book *Smart Girls: A New Psychology of Girls, Women, and Giftedness*. Her interest in gender and creativity began early, rooted in her own experience:

I graduated from a special Sputnik-era school for gifted kids. I hadn't followed my peers after graduation, until my tenth reunion. I realized that despite our extraordinary education—equal to the best private school in the country—the women had very traditional careers, if any. Half were homemakers, though they once had lofty career goals ... girls at 11 years old who wanted to be cell pathologists or foreign ambassadors.

Since embarking on this initial focus, Dr. Kerr's work has also branched out into other areas of creativity, but her interest in gender has always remained, as she noted, "I still have a strong concern for women because they are socialized to say yes to everybody, to be compliant and friendly. But to succeed creatively they need to learn to be disagreeable, to have thorns, to push back, to have boundaries."

She described how, at the tenth reunion experience, one of her former classmates suggested that she find out, "Why we didn't become the leaders of tomorrow." This concern and the reflection that followed built the trajectory of her career for many years:

In a group of women with the best education, that had grown up at the heyday of feminism—what happened? For years, ideas have been pushed about internal barriers, like self-efficacy, imposter syndrome. But I began seeing the external barriers—the structural barriers to gifted women, preventing their full achievement potential.

Dr. Kerr learned that creative women in the arts, music, and writing, "Have fewer protections than most women, even in academe, which is really not a lot of protection." She noticed that women in the arts face tremendous barriers of sexual harassment from their mentors and coaches, and flagrant discrimination against female creative writers or women film directors, reflecting, "The barriers are incredible. So, that's where I've devoted a lot of energy, to understanding those barriers, and to preparing adolescent girls by focusing upon gender relations."

Her research suggests the need to help women understand how to hold their career goals equal to their romantic goals, and to create career pathways that afford equitable treatment

of those goals. She described some of her earlier research, in which she and her colleagues examined gender relations among young gifted women, as follows:

We found that the degree to which women placed importance upon their romantic relationships, the degree to which they put time and energy into them, could predict their intent to persist professionally. In science majors for instance, it wasn't self-efficacy that predicted persistence, it was how much they valued their romantic goals.

As women's valuing of romantic relationships increased, professional persistence and goals decreased. Women tend to make greater career sacrifices toward their romantic relationships, creating barriers they are often unaware of. Making women aware of this trade-off has been a goal for Dr. Kerr, along with teaching them to have boundaries or stand firm in their aims. She does so through her scholarship, and her work at the *Counseling Laboratory for the Exploration of Optimal States*, which identifies and supports creative youth. As she describes it:

By the time women are adolescents they need to understand structural barriers and ways to overcome those, to become social change agents. When young women come to us with a creative personality and significant creative accomplishments already ... we tell those girls, "You need to pick and choose your fights, but being as sarcastic as you are and having the boundaries you have are going to help you. Just use that as talent wisely."

In the case of intelligent and creative women who never received the support to develop boundaries or understand the barriers, they may have "had their wings clipped." Thus, Dr. Kerr's work is often connected to education, in supporting change through awareness. This has led her to understand and inform how education can support and nurture creativity broadly.

### Supporting Creativity in Education

Dr. Kerr argues that despite the value of gifted education, it has faltered when it comes to supporting creative kids, commenting, "A third of our creative kids never even got into gifted education because their overall grade point average wasn't good enough, since they were focused on specific things they liked." She continued:

Creative kids get short shrift in education. If kids have conventionally high IQs and high verbal, high

math, there's plenty of agreement about what they need—general acceleration and enrichment. For creative kids, what is lacking is the understanding of how much they long for domain knowledge and expertise.

In other words, it is impossible to actualize or exercise one's creativity without having the knowledge needed to actually create something or develop a project. Dr. Kerr noted that creative kids, "just want to get going on their ideas and projects and need the information to do that." She described how education misses the boat on this:

One of the stupidest things that gifted education does for creative kids, is creativity exercises. They're already *creative*, they don't need creativity training. Instead, they may need to actually learn some forms. They may be extraordinarily verbally creative, so they could learn how to write a sonnet, to discipline that ability with knowledge. Maybe they need help writing a good critical paragraph. They want domain knowledge and skills to enact their creativity.

When asked what the single most important thing that education could do for the creative development of all kids, whether identified as gifted or not, she was clear about the importance of acceleration by domain:

The most important thing is to get rid of grade levels by age. There's no reason why all sixth graders need to be the same age. But we have these outdated notions that all kids need to be socialized in middle school, rather than continuing to challenge them academically. If we really want education to be friendly to creative kids, to *all* kids—we need to allow kids to progress at their own rate in the domains where they excel or are interested, or get help where needed.

She reiterated that being well-rounded is a trap, pointing out, "Many creative people don't need a record of having participated in every extracurricular activity and leadership activity. That goes against a lot of assumptions." Instead of pushing the notion of well-roundedness, Dr. Kerr instead asserts the importance of offering diversity in learning—not locking kids into age groups:

Part of becoming open to experience involves being among people who are very different from you in many ways. But that doesn't mean locking all 10-year-olds into fourth grade—that's crazy. Creativity and learning thrive in diverse environments ... where kids get to be around people from different places, with different

conceptual orientations, of different ages or from different nationalities or ethnicities.

Dr. Kerr emphasized diversity of experience as being critical not just to the development of creative kids, but also as benefitting the creative development of all students. She emphasized how the best way to increase creativity is to increase experience. This means increasing exposure to a wide variety of people and environments:

If we look at the personality construct of openness to experience, which is reliably associated with creativity, there's just a few things that build it—things like travel, learning other languages, and exposure to rich, stimulating, diverse environments. As people learn to love learning, they learn that new people and new experiences aren't scary, they're cool and fun.

This underlines the transdisciplinary perspective in her philosophy, since transdisciplinarity demands knowledge and experiences across disciplines in order to cross-pollinate creative thinking (Guyotte et al. 2014). Some of our previous columns in this series focused on transdisciplinary creativity, and learning by criss-crossing the landscape of subject matters (Henriksen and Mishra 2014). Creativity is combinatorial, requiring both deep knowledge of a particular subject matter, as well as a breadth of experiences and knowledge across subjects to inspire openness to new ideas (Liao 2016). This is echoed in Dr. Kerr's comment:

Musical training doesn't just teach you music, it teaches you history, in playing pieces from other eras. It teaches you about the world religions, about culture ... Musical training, language training, and arts training has been found to be very effective for people in technical and engineering fields.

This has curricular implications which align with existing research on integrating subject matter for creative education (Craft 2010). Another relevant point that she noted has implications for teachers, in recognizing the utility of different student temperaments; even those that do not fit traditional ideals:

We shouldn't strive for an "American" temperament. The temperament that most teachers love, is a child who's extroverted, conscientious, industrious, agreeable and friendly. I like those kinds of students too, but we don't *need* all students to be that type. Part of teacher creativity training is teaching tolerance of creative personalities, being okay with kids not being friendly or extroverted, and cutting slack to the creative ones who may not be fully conscientious yet.

Thus, her educational recommendations broadly involve acceleration by domain, and expanding diversity of experiences in learning. Part of expanding learners' horizons involves considering the opportunities afforded by new technologies, as tools to think with. On this front, she is excited and hopeful about the possibilities.

## Creativity and Technology: An Optimistic Eye to the Future

When it comes to the relationship between technology, creativity and learning, Dr. Kerr is optimistic and forward-looking. She characterizes the technology-creativity relationship as "overall a big plus," specifically for the hunger that creative people have for domain knowledge:

For a creative person, the world is at their fingertips. Kids used to have to go to the library and beg for books off the top shelf from somebody older. Now they can get access to that information. Any of these new ways to access knowledge ... it's just so good for creativity.

She is also excited about new trends in technology that have potential to change how we think, learn and operate creatively. She pointed to the rise of artificial intelligence (AI) as one of the new frontier of creativity, knowledge and growth. AI is a relatively new field (though it is growing fast) with a shortage of people prepared to work in it. Despite this, she suggests that this is an area for significant creative workforce growth:

We have a generation of young people coming who are so comfortable with technology that artificial intelligence won't be seen as a threat but as an exciting area ... The kids who are linguistically talented can work with machine language. Kids who are artistically talented or spatially/visually oriented now have all kinds of computer-assisted design.

Dr. Kerr provided an example of a creative technology project she is working on with a with engineering student Christopher Tacca at *University of Kansas*. She described a virtual reality (VR) enabled counseling environment, called *Heila Valley*, that they have developed:

This new virtual counseling space is for very isolated clients—people who would never set foot in a therapists office, but need some help. Think of the gamer sitting alone in her or his basement, who is comfortable with the online world, but not comfortable in a therapy space. They can enter the VR, choose their environment, their archetypal therapist, even the type of therapy that fits

their worldview. The counselor will have a dashboard showing the person in the VR and a microphone to speak in real time through the archetype.

This is a novel approach to counseling, providing mental health to people who may desperately need it but would never otherwise receive it. That said, Dr. Kerr is also sensitive to the fact that non-traditional approaches can be uncomfortable to traditional practitioners:

When we present it to regular psychologists, sometimes the response is, "Oh, I don't know. That sounds too far removed from therapy." I tell them, "Not for these people!" It's enabled to receive a constant EEG read, because in a VR space the therapist can't read nonverbals. But with the person's EEG they can read arousal level, and whatever spectrum they're in to read their attention, engagement, and frustration.

This is just one example of Dr. Kerr's broadly positive view of creative technological possibilities, which she described saying, "I am full on—let's see what tech can do to make our lives and work interesting and better." Of course, she is aware of concerns about new technologies, particularly around ethics, which is evolving behind rapid technology growth. But she believes that as technology develops, awareness of ethical needs and standards will come along too, despite some growing pains:

I sympathize with people who say, "Do we really have any standards here?" No, we haven't developed enough yet, but we will. That happens naturally as we see how things can be abused. For instance, this therapy VR I'm developing, we're ensuring it complies with HIPAA standards and with the APA Code of Ethics on online therapy. Any technology can be used unethically, but any technology can be used ethically.

For concerns about other potential effects of new technologies—such as concerns about anxiety and depression linked to smart phones, Dr. Kerr advocates a more nuanced and informed approach—rather than the default mode of blaming technology. For instance, she is a critic of Jean Twenge's (2013, 2020) studies that indicated links between technology-use and feelings of anxiety and depression. Dr. Kerr remarked:

[Twenge] has multiple variables and thousands of cases. In those data points, yes, the trend for anxiety, depression, and even suicidality among college students is going up. But of all the possible causation she says it's the technology, social media, phones. My response is, "We have a generation that's graduating into a world where

the climate is collapsing, societies are collapsing, it's impossible for people to survive and have a livable wage, and she thinks that the reason young people are anxious, is because of the phones?" That makes me crazy.

Dr. Kerr's experiences and research with young people in her creativity development work do not demonstrate a pattern of technology causing mental health problems. In recent years, she and her student colleague, Max Birdnow, have worked with 12 focus groups of over 100 creative adolescents, in which she and her colleagues ask them why they think their particular generation or cohort is more anxious and depressed, and how they feel about it. Through focus group studies she finds that:

A major anxiety for many kids today is academic pressure, feeling like they may not do well enough on all the tests—as though that performance reflects who they are. The second cause they give is the world situation, they use the word *collapse* a lot, societal collapse, environmental collapse. Third is bullying, but it's not always online. Fourth, being adolescents, is disputes with their parents. There are things you would expect them to be feeling. Their concerns about social media/phones, that's only seventh or eighth, way down there on their list.

Notably, she and her colleagues first started to see anxiety taking a hard upward-spike with the first group of kids that had experienced the *No Child Left Behind* era of high-pressure testing. While causality is hard to prove—this finding does suggest that policymakers and stakeholders do not understand the anxiety-inducing consequences of living and learning in a high-stakes testing culture. A recent *Psychology Today* article (Gray 2019), aligned with Dr. Kerr's concern—reflecting how both anxiety and hatred of school are fueled by frequent high-pressure testing, now appearing as early as kindergarten. Gray (2019) noted that children are tested at younger and younger ages, stripping the joy of learning and play from childhood.

Beyond this, Dr. Kerr's ideas suggest that we also need to pay attention to how global and societal fears affect youth today. She points out that students can “see and they understand that things are not so good right now. They need help in understanding how creativity can translate into solutions to problems—a reframing of the negative into the possibilities they can offer.”

## Conclusion

Dr. Kerr's positioning of creativity, technology and education is hopeful and optimistic, but also acknowledges concerns about our unstable world. She notes that this uncertainty is why creativity is particularly important for young people and students today, both for solving the problems society faces and assuaging their existential fears. As she noted, “Times like these—whether the great plague or the great wars—stimulated enormous creativity. Human creativity is borne out of disastrous situations. Young people need to know that they're living at a time when their creativity really matters.”

Her research trajectory, grounded in psychological expertise and empirical rigor, is built on a backdrop of hope for how creativity can make the world better. Her focus on creative personalities and groups has led to an understanding of how creativity emerges in different professions and people, and has sought to break down structural barriers and gender-related inequities around creativity.

Her work also suggests the need for a structural rethinking of education. Our current paradigm does not support creative development, in that most children are locked into age-groupings for learning, rather than being supported based on individual passions, interests, abilities or needs. Further, students' creative development could be strengthened by a more transdisciplinary integration of school subjects, more recognition of different types of temperaments, and stronger connections to diverse real-world experiences.

Dr. Kerr provides a critical voice in education, speaking to the need to support and develop creative potential in our students. As we look ahead to the uncertainty of the future and complexity of our world, there may be no greater goal to aspire to.

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