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Organizational Contexts and Team Creativity: an Interview with Dr. Roni Reiter-Palmon on Innovation within Organizations

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The formulation of a problem is often more essential than its solution, which may be merely a matter of skill.
– Albert Einstein
We don't have a lot of simple problems these days.
– Dr. Roni Reiter-Palmon
The secret is to gang up on the problem, rather than each other.
– Thomas Stallkamp

Introduction

The Deep-Play Research Group, like many teams, brings together people with a wide range of interests, a range of expertise and strengths, and surprising threads in common as we look at issues surrounding creativity. Recent pieces in this article series have focused on understanding the field of creativity research (with connections to technology and twenty-first century learning) in a broadly inter-disciplinary way. To do this, each piece investigates the perspective of a different expert in creativity research, sharing ideas and some key themes from an interview with them about their take on creativity. In this article we share insights from an interview with Dr. Roni Reiter-Palmon, whose work in Industrial Organizational Psychology (I/O Psychology) offers insights on what makes a workplace a supportive place for creativity, how teamwork matters, and what matters when you are creating within business settings.

Dr. Reiter-Palmon is the Varner Professor of I/O Psychology and the Director of the I/O Psychology Graduate Program at the University of Nebraska at Omaha. She is also the Director for the Center for Collaboration Science, an inter-disciplinary program at University of Nebraska. Dr. Reiter-Palmon has done extensive research around core issues in the field, including: creativity and innovation in the workplace (for individuals and teams), cognitive creative processes, team decision-making, and organizational adoption of innovative processes.

Given this, she offers a unique perspective on the application of psychological principles and knowledge in the workplace. When she began her work, creativity was not considered an important dimension for most organizations and work environments. But all that has changed as creativity has become a key issue for many organizations, something Dr. Reiter-Palmon attributes to technology and globalization. She explains, "The need for creativity and innovation has just increased tremendously. It's to the point that many organizations believe that if they don't innovate in one way or another—then not only are they staying in place, but they will fall behind and potentially disappear."

As follows, we distill a few core themes from our discussion with Dr. Reiter-Palmon to share her research and insights around organizational and work environment creativity. These themes include: problem construction as a precursor to creativity, innovation and creativity in organizations, interdisciplinary and team creativity, and technology as building creative bridges.

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Problem Construction as a Precursor to Creativity

Our conversation began by tracing the evolution of Dr. Reiter-Palmon's creativity interests, and threads of research that have developed over time in her agenda. Her early work focused on individual cognitive processes for creative people. This process includes thinking about how people grapple with the problems that require creative solutions, which leads to the question of how people understand and define problems before engaging in solution paths. As Dr. Reiter-Palmon first examined how people were thinking when they came up with creative ideas, she realized that the first step of *problem construction* or *problem identification* was key, because this directs the process of creativity. As she explains:

> How do you know that there is even a problem to solve at all? How do you think about it? Often, the problems that allow for creativity tend to be very ambiguous—so they have a lot of missing parts, different causes, and a lot of possible solutions; so the way you think about it shapes what solutions you will follow and what sort of solutions will fall by the wayside because they don't really align with the ideas or the perceptions that you have of the problem.

She notes that this is true of all complex problems, and describes how problem framing and finding are at the core of why interest in popular, professional, and societal creativity is on the rise—because complex problems require creativity, and twenty-first century contexts are rife with complexity. There is an increasing societal awareness of this, which is felt in organizations too:

> I think we're seeing more attention to creativity and innovation because we have lot of complex problems to solve, both as a country, in the world, or anything in the political realm that you want to touch. Whether it's climate change, or poverty, or anything meaningful—and that awareness drips down to organizations. We don't have a lot of simple problems these days.

That *how* you understand complex problems provides a frame for the ways you can creatively problem solve is a simple, but powerful idea. The topic of "problem-finding" has been addressed in a variety of ways in creativity literature, with studies of problem construction, problem identification, problem definition, and similar topics (Runco 1994). Recently, it has become a topic of increasing interest in conjunction with the subject of design thinking (Plattner et al. 2010)—because the way we define a design problem ultimately directs the creative paths we take toward solutions.

In the arena of problem finding or framing, issues of social and environmental factors become increasingly prevalent: considering how contextual factors may constrain or contribute to more fruitful and creative framing. Dr. Reiter-Palmon focuses on creativity in organizational settings, so she shared with us two key characteristics of a creative workplace that supports open problem construction and problem solving:

> First is recognizing that creativity takes time and effort. If you have a work place or an environment or a leader that does not allow for that, you can have the smartest people in the world, but they won't come up with creative ideas. The second issue is that feeling of "psychological safety," which is being able to express ideas knowing that you will not be put down. Being able to openly discuss and have different viewpoints and be safe about it. Leaders have a lot to do with encouraging an atmosphere where people feel that's okay. This is how we come up with creative ideas and decide on better ways of doing things.

She also acknowledged some of the inherent challenges in giving that time and space for problem solving, particularly in business settings. Organizational settings can construct their work environments for employees along a tremendous range of settings, and with attention to many different variables. How they construct these settings and how the environmental variables play out is reflected in how creative works can be. Central to this is the question of how supportive of creative processes an organization is—including processes they might not otherwise think to support, such as failure. She explains it as such:

> It requires a lot of effort on the part of the organization to understand that oftentimes ideas will not be successful. You can come up with a lot of different ideas and most of them will not be successful, they won't be developed further. And you have to live with that, and you have to allow for that – which is not easy.

Making space for failure is important across all fields. Failure is inherently a part of most creative processes, since it is rare that any person or team grabs on to the first idea they see, then try it out, and find that everything goes perfectly. As Smith and Henriksen (2016) point out, when competitive ventures place such a high value on success and rule out the possibility or legitimacy of failed attempts, the opportunities for creativity are almost entirely foreclosed. Being able to fail allows for iterations of solutions that might eventually lead to success, or equally importantly, strengthen resilience and acceptance of ambiguity. It is only through engaging with the full breadth of creative processes, that we can begin to develop ideas or artifacts that can be deemed "creative." Which of course, begs the question of how Dr. Reiter-Palmon defines and thinks about creativity and innovation within organizational contexts.

Innovation and Creativity in Organizations

Dr. Reiter-Palmon joins many creativity scholars in defining creativity as ideas, artifacts, or processes as things that are "novel and effective" (Henriksen 2011). She notes that working in an organizational setting requires a distinct focus on the "effective" element of creative solutions. After wrestling with a problem and generating ideas around it, creativity also requires careful attention to idea implementation and how that is assessed, too. She points to the importance of effectiveness in organizational settings, considering the difference between innovation and creativity as happening at multiple levels, as she notes:

> Innovation is typically viewed as the implementation side…So creativity is coming up with the idea and innovation is implementing that idea in an organization or developing a product. Both are important. If you're working in the business arena, you really need to have both… If I have a great idea that isn't implemented, the organization doesn't benefit. The factors—whether at the individual, team or organizational level, that facilitate coming up with good ideas are not necessarily the same things that facilitate successful implementation.

The multiple and competing factors that contribute to and allow for creativity in a business make it hard to measure "how creative" a work place may be. Dr. Reiter-Palmon has an upcoming book chapter on the challenges of measuring creativity in terms of personality. She finds that even there, different assessments reveal different results. Explaining the messiness of measuring by self-reports, and the disconnect between individual level creativity and organizational missions, Dr. Reiter-Palmon discussed the challenges in finding measures that identify key variables:

> Finding a measure of creativity that is not particularly tainted is difficult—all of them are. But that is what we're trying to assess when we talk about creativity. And then we're trying to recognize the differences that emerge from these different measures, and how we can take results from one area and apply it to another area successfully.

For organizations wanting to encourage creative work and thinking, Dr. Reiter-Palmon suggests that certain structures lend themselves more easily to allowing the space and safety for creativity, and for the opportunity to take a somewhat winding road toward innovation. Such structures need to have a certain amount of flexibility, tolerance for ambiguity, space for people to play with ideas, and allowance for failures and mistakes. These things can be difficult for many organizations to enact, as she notes:

With organizations that are operating in a very lean structure where every person, every hour needs to be accounted for because there's a lot of work to be done, giving people freedom and time to play - if you will - to experiment for something that is not a sure bet is incredibly difficult.

The idea that play contributes to creativity, and ultimately innovation, is not a new one. In our previous series of articles, we discussed the concept of *play* as a transdisciplinary skill that facilitates the shaking of traditional constraints, allowing thinking and problem solving to become both fun and more creative in an open-ended exploration of new possibilities (Henriksen et al. 2015).

Interdisciplinary and Team Creative Thinking

The nuances of problem framing and organizational structures become compounded when looking at creativity in teams—and this is central to Dr. Reiter-Palmon's interest in the field. Because she looks at organizational creativity, the social dynamics of creativity in groups is important, as that is how much creative work emerges in work contexts. It would be rare and unusual, if not impossible, to see one person working creatively in isolation in an organization, as most people must collaborate and engage in team or group work to accomplish goals and solve problems. In these contexts, it is no longer just one person's thinking process, but social processes overlapping and influencing several individual's thoughts. As Dr. Reiter-Palmon explains, the inability to separate out individuals thinking processes and the social processes that surround them have led her to think more deeply about communication, leadership, and teamwork. She commented:

> I do a lot of work on interdisciplinary teams because when you talk about research and development, where you really see creativity tends to be in interdisciplinary teams, and that's not easy to facilitate. It's incredibly difficult to create a team that works well together and is interdisciplinary—but it is possible. And once they start working well together that fertilization from the different disciplines and talking across and within disciplines makes for a much better outcome.

The value of having multiple perspectives and voices of expertise has been held up as desirable standard and incredible challenge in all sorts of organizations. This corresponds with existing research around creativity and transdisciplinarity, which suggests the value of teamwork structured for diverse voices, perspectives, and backgrounds that span disciplines. Rosenfield (1992) suggests that a group level "transdisciplinary approach can provide a systematic,

comprehensive theoretical framework for the definition and analysis of the social, economic, political, environmental, and institutional factors influencing human health and well-being" (p. 1343). This suggests that drawing on knowledge and experts from different fields is one of the most viable group structures to allow people to solve problems in creative, effective ways. Some scholars (Hall et al. 2008) have also argued that building teams to represent diverse disciplines is one of the best ways of resolving real-world scientific problems. However, as Dr. Reiter-Palmer notes above, building and sustaining such teams requires careful work up front, and good communication and empathy to ensure constructive group dynamics. When such teams function well, they offer a unique landscape for productive creativity and problem solving.

Dr. Reiter-Palmon discussed a project that she undertook across several different hospitals, with the common goal of implementing innovations around fall-reductions. She recalled how most of the hospitals she worked with built their "interdisciplinary teams" to include: doctors, nurses, physical therapists, pharmacists, people from their quality assurance, and other health care professionals—all of whom had important and different perspectives that made for good work. However, she noted that one hospital understood "interdisciplinary" in an even broader way when they built their teams. This organization included members of a great range of disciplines and this led to even more novel and effective results. For example, by including their Information Technology team the problem space and potential solution development expanded to consider what IT could do with patients' medical records to support doctors or nurses in preventing falls. This is, of course, a rather ideal example of a time where all members of the team had a familiar language and every individual's knowledge was recognized and honored as legitimate. But in that it points to the importance of giving people time to understand and listen to others' perspectives and to learn how to work toward the same goals. It highlights the value of designing teams for multiple perspectives, and lending them support for collaboration and creative thinking.

The idea of recognizing, responding to, and encouraging the creativity of others across disciplines in many forms is something Dr. Reiter-Palmon identified as an important way educational institutions could contribute, as she explained:

> We need to help kids have the information and the knowledge they need—because creativity certainly requires knowledge. But we also need to find a place to teach children to think creatively. I'm not just talking about art, although I think arts education is critical. We can't just say creativity equals art—we need to teach children to think creatively about science and all disciplines, about approaches to solving problems with friends in the playground. It should permeate the entire school curriculum.

The idea that creativity can and should be woven throughout disciplines and curricula is a common refrain. It informs arguments for promoting STEAM over STEM, for ensuring students have access to music, art, and gym, and for helping them to focus on constructive habits of mind across all subject spaces, and toward becoming literate global citizens who can function in many contexts in a complex world. This brings us to the consideration of technology and creativity.

Technology as Building Creative Bridges

The role of technology arose in Dr. Reiter-Palmon's discussion of the transformations occurring in business settings that enable globalization, and which contribute to the push of creativity and innovation. This brings us back to the relationship between technology and creativity; or as she framed it:

> I think what we need to be careful about is assuming that technology equals creativity. I sometimes see that. For example, we have this great technology, a great tool and we think we're going to get creativity because we have a cool toy or tool. I think technology can be thought of in terms of allowing us to do things in new ways that we couldn't do before.

But she warns against assuming that technology "in and of itself is either necessarily helpful or harmful to creativity." Recent work on the role of technology in teaching emphasizes that it needs to be carefully paired with pedagogy and content knowledge (Mishra & Koehler 2006). Dr. Reiter-Palmon echoed those sentiments, suggesting the most important element of technology is "how we use it to teach, to train, to work…We don't have a full handle on where technology can help us and where it can hurt creativity, because every time we try something the technology is already obsolete before it goes to press. It moves very very fast. So I think we need to be careful. We can't leave out the people part out of the technology."

Dr. Reiter-Palmon points to one way in which this balance between technology and people is seen in creative teams. It is true that before recent explosions of digital technology capacity, it was possible to brainstorm with people scattered across the country or the world. But this was a stilted process of waiting to see who was going to talk next, forgetting ideas, or losing focus. As she noted:

> This facilitates the brainstorming of creativity. So instead of doing it by phone conversations or in a meeting room where one person talks—where we have six people in the room where everyone has to be quiet because this one person is talking, but everybody else is thinking about "oh, what do I want to say next"—now we can have people using technology to write ideas down

simultaneously. Thinking is visible and we can be swapping information. A meeting that would take two or three hours, we can boil down to twenty minutes.

The danger however, is to not let the affordance of this technological bridge turn into a problem of idea overload. "It's not uncommon for us to come up with one hundred or two hundred ideas in twenty minutes. But when that happens, people become confused and overwhelmed," which necessarily leads back to the human element of being able to filter through the ideas to see what you want to do with them or what you cannot do with them.

Dr. Reiter-Palmon speaks to this challenge of information overload, caused by diverging volumes of ideas. She suggests some strategies for dealing with this, which are aimed at moving from the divergent stage of creativity to the convergent stage, noting:

> What you need to do is start to take those large number of ideas and remove ideas that are redundant, remove ideas that cannot be carried out. Start to think about what's doable and feasible, but also what are some original ideas that we want to implement to come up with that creative idea. And that's how you get to those creative ideas that eventually get carried out.

This speaks to a challenge inherent in almost all creative work, in that it requires us to move between different modes of thinking—in particular, between divergent and convergent kinds of thinking. Divergent thinking is widely noted as a core aspect of creative work, in that creative practitioners must be able to generate lots of ideas, far and wide. At the same time, however, they must be able to identify and pursue the one of their many divergent ideas. It is through convergent thinking that they can narrow themselves in idea selection to focus and implement novel and effective plans (Cropley 2006).

Summary

Dr. Reiter-Palmon's ideas are apropos to many of the constructs and avenues for creative thinking that we have explored and framed this article series around thus far, but she also brings a unique organizational slant to the topic. Despite the differences in contexts between education systems and organizations, at a foundational level creativity has common themes. There are many ways in which Dr. Reiter-Palmon's work, research, and thinking around creativity in organizations can inform the field of creativity overall, as well as education in particular.

That said, the tensions that schools and teachers feel in the current educational climate of testing are not lost on Dr. Reiter-Palmon, who notes how school structures are not often

geared towards the kinds of creative productivity that organizations of any kind seek in the real-world. She explains:

> Creative children can be more disruptive in the classroom; with the focus on testing and test scores, teachers really don't have time to work with a child and encourage them to be creative. They need to stay on task and teach the material. So we may actually be in a situation where children are being told, "Stop being creative. We don't want you to be creative," which is problematic.

Despite these challenges, across the scope, range, and diversity of perspectives and lenses in creativity research there are common threads echoed by researchers on the topic. In communicating this knowledge, there is hope that some of it might be taken up by education. The notions of building and valuing diverse teams of thinkers, developing collaboration skills, and helping students to listen to each other and recognize the usefulness of transdisciplinary creative thinking skills, are vitally important for educational progress. These ideas can enrich students' education and future collaborations as global citizens in a complex world.

Dr. Reiter-Palmon suggests that while developing people's creativity has challenges in its open-ended and subject nature, there are avenues that are more amenable for this—particularly in the teaching of thinking skills. She commented along these lines:

> I have found that the thinking processes associated with creativity are more easily trained than other factors related to creativity. For example, we can consider factors that facilitate successful problem construction around creativity—how do people generate ideas that would result in creativity, and how do people chose from those ideas the ideas that are most creative? I wouldn't say these are easily trained, but they are *more* easily trained than saying, "Oh! Creative people are open to experience. Be more open!" So you can engage in training of these creative thought processes…You need to start teaching children, and can continue to teach adults in the workplace. And I've done it successfully.

The thinking processes, and environmental structures Dr. Reiter-Palmon describes—aimed at flexibility, idea generation, openness, and interdisciplinary or transdisciplinary teams—are all elements that might well inform the ways that students learn in schools. Furthermore, the value of both divergent and convergent thinking is significant, because it speaks to all aspects of creativity—both how we find good ideas by entertaining and generating many, and also how we narrow and focus to work on one which feasibly fits. These are practical and real-world processes that allow society to benefit from creative thinking—with solutions that are enacted in practice.

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