

Editorial

Skeptical Optimism: An Open Letter to New Practitioners of Scientific Psychology

Robert D. Mather, Editor

Science requires skepticism. A scientist lives in a “show me the data” world in which theories are never proven, only supported. Science requires a certain level of pessimism, or the negative expectancies that lead the scientist to question everything. There is no question that the systematic methods of science are important, efficient, and necessary to acquiring knowledge. However, once a person is trained as a skeptical inquirer, optimism is necessary for creativity. Armed with the tools of science, I challenge you to become a skeptical optimist.

I have loosely defined a skeptical optimist as “a scientist who uses the tools of skepticism to acquire knowledge inspired by positive expectancies.” A scientist with skeptical optimism might say, “This *will* happen if we test these variables, even if others don’t believe so.” A scientist derives the benefits of skeptical optimism from the creative inspiration that accompanies it. Creative thinking is the unique connection of novel ideas or concepts. Too much skepticism can keep science from progressing. Innovative, successful scientists use the methods of skepticism to test ideas that are developed from optimistic creative thinking.

Much of what I understand about skeptical optimism comes from observing my family. My father and I are both scientists. Growing up, it was always fascinating for me to try to understand how this cheerful man could be so skeptical and supportive when I asked questions. I would ask deep psychological questions like “Why do I have to mow the lawn,” “Do people in all cultures laugh the same,” and “How do you know that?” He would give me a science-based answer and I would quickly derive my own hypotheses. A frequent response that I would get to my hypotheses was “Probably not, but maybe if...” What he was demonstrating was skeptical optimism. The skepticism comes from being a good scientist, but the optimism is what makes a scientist successful and what pushes science forward.

Many people will tell you “no” in your career. They will say “you can’t get into this school,” “that idea won’t work,” or “you can’t do it that way because we just don’t do it that way.” Don’t take them at their word. Use your skepticism to find a better answer or to make them show you why their way is better. Don’t get discouraged. The optimism will guide you to better ideas.

My 10-month-old son embodies skeptical optimism. He plows through life smiling, giggling, and completely fearless. All he knows about the world he learned in the past 10 months. Does it feel smooth or rough? How does it taste? Can I get Daddy to smile if I do that again? These are questions he does not seek answers to consciously, but he asks them implicitly and seeks answers. If he changes the pattern, will it make a difference in the outcome? He has control over his gathering of information. My job is to tell him when not to do something, such as don’t touch the outlet, and to suggest when to do something, like trying out the new toy. He supplies the optimism and he supplies the systematic inquiry. But where is the skepticism? It’s my job to teach him the skepticism, just as your teachers have taught you to be skeptical. But my job training a scientist is no different than raising a son—teach the skepticism, nurture the systematic inquiry, and protect the optimism.

The task is clear. Teach non-scientists to be skeptical. Teach scientists to be optimistic. And above all, use the skepticism that you have learned as scientists, use your skills at systematic inquiry, and never, ever lose your optimism.

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ⁱ Note: A skeptical optimist is very different from a cautious optimist. A cautious optimist wants to be successful but has fear that they will not or are not producing the desired result. A skeptical optimist uses their skepticism to systematically test novel ideas.