

Cambridge University Press
978-1-107-14555-9 - The Joy of Science: Seven Principles for Scientists Seeking
Happiness, Harmony, and Success
Roel Snieder and Jen Schneider
Frontmatter
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The Joy of Science

We live in an age where working in science or engineering offers tremendous professional opportunities – the pace of scientific development is truly breathtaking. Yet many researchers struggle with the pressures of the fast-paced academic workplace, and struggle to harmonize their work and personal lives. The result can be burnout, exhaustion, and stress on a personal level, and difficulty in recruiting and retaining talented, diverse people in science and engineering. This book, written for graduate students and researchers at all stages of their careers, aims to help scientists by identifying and questioning the core beliefs that drive a culture of overwork, and provides real-world examples and exercises for those wishing to do things differently. Written in a lively, narrative style, and including interview excerpts from practicing scientists, social scientists, and engineers, this book serves as a guide for those seeking to practice the seven traits of the joyful scientist.

ROEL SNIEDER holds the Keck Foundation Endowed Chair of Basic Exploration Science at the Colorado School of Mines. He received a master's degree in geophysical fluid dynamics from Princeton University in 1984, and in 1987 a PhD in seismology from Utrecht University. He has a strong interest in teaching professional development, and has developed classes on the Art of Science, Research Ethics, and Teamwork and Leadership. He is coauthor of the textbooks *A Guided Tour of Mathematical Methods for the Physical Sciences* (Third Edition, 2015; Cambridge University Press) and *The Art of Being a Scientist: A Guide for Graduate Students and their Mentors* (2009; Cambridge University Press). Roel is a Fellow of the American Geophysical Union and Honorary Member of the Society of Exploration Geophysicists.

JEN SCHNEIDER is an associate professor in the Department of Public Policy and Administration at Boise State University, where she teaches and advises in the graduate program, and holds affiliate appointments with the College of Innovation and Design and the Public Policy Research Center. She serves as the associate director of the Boise State University Experimental Program to Stimulate Competitive Research (EPSCoR) program. She has published widely in the fields of environmental and science communication, energy studies, and engineering studies, including coauthoring the books *Engineering and Sustainable Community Development* (2010) and *Under Pressure: Coal Industry Rhetoric and Neoliberalism* (2016).

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“In these times where scientists are under increasing pressure to prove their worth through metrics, this welcome book provides a refreshing perspective into how we might all find personal satisfaction and joy in playing the game of science.”

– Julie Smith, Psychologist, Radford College, and Malcolm Sambridge,
Australian National University

“This book stands out from the sea of recipes for work-life balance and time management, in that it distills joy as a core trait for “success”. Although it may seem at odds with the objective scientific method and the image of detached, humorless scientists, the authors make a fascinating case for personal touch, passion, and subjective imprint as core assets for creative, ground-breaking progress and improved personal lives. The book is informative and captivating, but most importantly, it is timely in an age where performance pressures surge to the detriment of progress, and academics find themselves with little time to do research.”

– Tarje Nissen-Meyer, University of Oxford

“Too many scientists fall into the trap of overworking and burning out at great cost to their careers and personal lives. In *The Joy of Science*, Roel Snieder and Jen Schneider present a highly readable discussion of the challenges scientists face, and provide personal stories, thought-provoking questions, and practical recommendations relevant to both young and more senior scientists. They remind us that we are human and help us keep our eye on the ball, of a joyful and fulfilling life.”

– Richard Primack, Boston University and Editor-in-Chief,
Biological Conservation

“In *The Joy of Science*, emotional intelligence takes its rightful place alongside intellectual intelligence. A perfect read for the scientist, academic or engineer seeking a more fulfilling and successful life. [It] will be at the top of my client reading list.”

– Eileen Flanigan, MBA Process Engineer, Author and Life Coach

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Seven Principles for Scientists Seeking Happiness, Harmony, and Success

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*For our families
Eric, Addie, and Nolie,
Idske, Hylke, Hidde, and Julia,
who make seeking harmony worthwhile.*

*And for Terry Young , a great friend and colleague,
for setting an example by embodying
wisdom and compassion.*

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Preface

The idea for this book came out of the experience of working with the faculty, staff, and graduate student reading groups at the Colorado School of Mines (CSM), in Golden, Colorado. Organized by Roel, these groups began meeting in 2009, and functioned as a sort of academic “book club,” the aim of which was to provide our CSM colleagues with a venue for discussing interesting ideas and concepts related to working at the university. For example, one early text the group discussed was John Medina’s *Brain Rules*, which discussed novel and innovative ways to promote learning and productivity.

But a secondary outcome soon emerged – as the two of us participated in the groups, we noticed that they were meeting a need among faculty, staff, and students to build a community, a place where we could discuss ideas that were meaningful to us not just as employees but as whole people, humans who lived their lives through and beyond the walls of the institution. We read books and readings on topics ranging from spirituality to social justice to project management, and were edified by our colleagues’ commitment to showing up for sometimes difficult but often rewarding conversations about how to bring our whole selves into the workplace.

We also realized, however, that there were few books that addressed the specific concerns of scientists, social scientists, and engineers who wanted to better integrate their home and work lives, or who were struggling to feel both successful and joyful at work. In off-handed terms over lunchtime conversations, the two of us began discussing the possibility of creating a workbook for our reading groups that might offer helpful exercises and short readings for addressing the concerns of those trying to navigate their way through scientific or technical graduate programs, the tenure-track,

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Janwillem Snieder (www.jwsnieder.nl)

or demanding academic and corporate careers in the sciences that seem to require ever more commitment and longer working hours.

As our discussions continued, we soon realized that a brief workbook wouldn't allow us to do what we really wanted to do, which was to describe the traits of those whom we believed were most successfully and joyfully integrating their work and personal lives. We noticed that the colleagues, mentors, students, and friends who most inspired us shared seven characteristics, traits, or practices that made them both effective and joyful in the workplace and beyond. Exploring these seven traits required a more sustained exploration, and the result of that exploration is this book. While working on this

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project, we also had the opportunity to reflect on our own experiences, on reading we have done as “seekers” interested in untangling the puzzle of “work-life balance,” and on some of the academic research that has been published on this topic. We have tried to integrate these many pieces into an easily accessible format, one that will primarily appeal to academic scientists, engineers, and social scientists, but which may have broad appeal for any professionals seeking more joy in their lives.

As with any book-length project such as this one, many hands made the work possible. We are grateful to Matt Lloyd and Zoe Pruce at Cambridge University Press, and Ramya Ranganathan at Integra-PDY, for their support, enthusiasm, and guidance in shepherding this book from draft to physical artifact. Sara Kate Heukerott, Christoph Sens-Schönfelder, and Ken Larner read early drafts of the manuscript and provided valuable feedback and encouragement. Rembrandt Zuijderhoudt was both an inspiration and a sounding board when this project was no more than an idea. Janwillem Snieder, Roel’s brother, graciously provided the delightful illustrations for the book. We have also both had wonderful mentors, teachers, and role models who have helped us personally to live more joyful professional lives, and who were our exemplars as we brainstormed the seven traits of the joyful, successful academic: Ken Larner, Toni Lefton, Carl Mitcham, and Terry Young.

Several colleagues took valuable time at the end of a very busy semester to provide us with narratives of their own experiences – both good and bad – with integrating their work and home lives. We are incredibly grateful to them for their bravery and honesty, and their stories have made this book much richer. We are also lucky to have worked with many of them: Deserai Anderson Crow, Jason Delborne, Lejo Flores, Monica Hubbard, Ken Larner, Jerry Schuster, Jon Sheiman, Evert Slob, Sven Treitel, and Terry Young.

Above all, we are grateful for our families. Roel is grateful for Idske for sharing her love and for living with a restless husband, and for Hylke, Hidde, and Julia for being wonderful adult friends. Jen wants to

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thank Eric, who shows his support and love through countless gestures large and small, every day, and Addie and Nolie, who have made life better, richer, and more beautiful in all ways.

WE WOULD LIKE TO HEAR FROM YOU

Writing this book, and using it in our teaching, is an evolving project. We see this book as an exciting step in our own growth, and hope that this project leads to new initiatives such as lectures, workshops, or even another book. We would love to hear your reactions and suggestions, and hope you feel free to contact Roel (rsnieder@mines.edu) or Jen (jenschneider@boisestate.edu). We will post errata and other information related to the book, as well as the next steps that we will take, on the following website: www.mines.edu/~rsnieder/Joy_of_Science.html. Follow us on Facebook at www.facebook.com/ScienceHarmonySuccess/.