



## A Portrait of the Scientist as a Young Woman

William Morrow Hardcover

By Lindy Elkins-Tanton

ISBN: 9780063086906

### Introduction

Deep in the asteroid belt between Mars and Jupiter, three times farther from the sun than the Earth is, orbits a massive asteroid called (16) Psyche. It is one of the largest objects in the belt, potentially containing the equivalent of the world's total economy in metals, though they cannot be brought back to Earth. But (16) Psyche has the potential to unlock something even more valuable: the story of how planets form, and how our planet formed. Soon we will find out, thanks to the extraordinary work of Lindy Elkins-Tanton, the Principal Investigator of NASA's \$850 million Psyche mission, and the second woman ever to be awarded a major NASA space exploration contract.

Amid a childhood of terrible trauma, Elkins-Tanton fell in love with science as a means of healing and consolation. But still she wondered, was forced to wonder: as a woman, was science “for her”? In answering that question, she takes us from the wilds of the Siberian tundra to the furthest reaches of outer space, from the Mayo Clinic, where Elkins-Tanton battled ovarian cancer while writing the Psyche proposal, to NASA's Jet Propulsion Laboratory, where her team brought that proposal to life.

*A Portrait of the Scientist as a Young Woman* explores how a philosophy of life can be built from the tools of scientific inquiry. It teaches us how to approach difficult problems by asking the right questions and truly listening to the answers—and how we may find meaning through exploring the wonders of the universe around us.

### Questions for Discussion

1. Several times Lindy faced decisions around changing careers, from business to science, for example, and other decisions related to changing employers. What factors drove her to consider those changes, and which influenced her final decisions? What factors in general should be considered in changing jobs?
  2. What role did Lindy's childhood experiences play in guiding her career, in retrospect? In what ways do childhood experiences guide career choices, in general?
  3. When starting to describe her childhood, Lindy comments that she could describe it in a positive or a negative way. In your own life, can you tell the story of your childhood in both a positive and a negative way? What are the benefits or pitfalls of adopting one of those narratives as the main truth?
  4. Sometimes creating change in a workplace involves firing people or changing process in radical ways. What are factors should leadership consider when creating change in an organization? Is there a degree of disruption that is too much, in the effort of making an ethical workplace?
  5. How does work-life balance appear in the book? Where is there a line between work and life, and where are they blended? In what ways is it positive or negative to blend work and life?
  6. Lindy has been asked a number of times by young women scientists when in their career they should plan to have children. Based on events in the book what do you think some possible answers might be? Why do you think this question comes up for young women? What might cause them to ask that question?
  7. We all live in social and work structures where some people have more power than we do, and some have less. In your own life, what experiences have you had where someone encouraged you to speak up more? Have you ever had the opportunity to allow other people to be better heard? Where in the story does it seem like more voices were needed to make better decisions?
  8. What is science? Is it about facts or questions? Does basic science, where results can't immediately be applied to human products or health, for example, have an important role in our society?
  9. Do you think Lindy made the right decisions when working with the Chancellor on issues with Chris? What other options could have been considered? Did Lindy's decisions get better and more effective over time, or worse? In what ways is taking action influenced by one's own past positive, and in what ways negative?
  10. Many of the educators in this book think that learning should be a balance of learning facts and concepts, and learning how to learn better, how to think better, in a more abstract sense. What are the most positive experiences a person can have in school? Are those experiences directly related to learning? Do they even usually happen in the classroom?
-

11. Do you think “meaning” might be a fictional construct, as Andrea suggests? What would that mean more specifically, and what would it mean for our lives?
  12. What is success and what is failure, according to ideas in this book? What did Lindy consider success or failure in her person life, or in science? What are the right goals for a life?
  13. Have you read other memoirs by scientists? By women scientists? How is this memoir different and/or similar to those other books? Do you think that scientists write about their lives differently than people in other professions? Describe the differences and discuss what they might mean.
-