

BECOMING SUPERGENIUS

PART I : THE OUTER WORLD



LINCOLN STOLLER ■

Praise for

Becoming Supergenius : Creativity and Transformation

This piece of work is as profound as it is elegant. Exploring what might seem like simple concepts into depths of discovery and understanding that should be requisite of anyone working in education. Many educators will go through full careers without considering some of these areas. With this work as a guide, the education landscape could be irrevocably changed for the better.

— **Lewis Ames**, Director—Children of the Forest

These books immediately—no fooling around—challenge whether you are even learning, and then help you understand how to know if you are learning anything at all!

Book I: Outer Work, is a challenging book to help those who want to think for themselves. *Book II: Inner Work*, is about thoughts and perceptions: Are you the creator of your own problems? Avoid group think even when you feel compelled to conform. Hear your fear and deal with it! Intuition favors the quiet mind. When you are unclear, you are wrong. Where did you lose your intuition? These are all such important parts of intelligence.

Here are the most useful questions you will ever ask yourself; crucially important for self-inquiry, self-understanding, and self-esteem. They will help your mind strengthen through your own self-work. These books provide landmarks to gain, to hold, and to refer to in the project of deeply understanding who you are. *Becoming Supergenius* is outstanding! This is definitely genius.

— **Ann Hallock**, MSW, LCSW, ACSW

2020 presented a pivot point in life for most of us. The pandemic has caused us to be incredibly introspective in our thinking. Enter *Becoming Supergenius*. It has a calming influence when used as a meditation and it has the ability to spark deep thinking.

After reading *Becoming Supergenius*, I think I have found my inner voice! It has been sleeping for a very long time. After reading the first few sections, I found myself popping to different sections as my pandemic experience brought on different situations and emotions in life. Other times, when I would start reading, I just needed more and kept reading.

I judge a book by how it grabs me emotionally and intellectually and, indeed, *Becoming Supergenius*, locked me in and opened my thinking. Life may never find its 'normal' for a very long time. So, hold on tight. Reach out for some sage wisdom that will grow your new genius from within.

— **Rose. L. Colby**, award winning author of *Competency-Based Education: A New Architecture for K-12 Schooling*

Becoming Supergenius: Creativity and Transformation is an engaging and inspiring book that is composed in a way that can be revisited often. No story lives unless someone wants to listen, and Lincoln has developed great skill as a listener and investigator. Sapient, incisive, perceptive, and enlightened.

— **Darren Saare**, RSW, Leader—Community Health Services, Vancouver Island Health

In *Becoming Supergenius: Creativity and Transformation*, Lincoln Stoller explores the concept—and importance—of degrees of intelligence. Just as transcendent athletes and musicians can forever elevate their respective crafts, ‘supergenuses’ also have the potential to do the same for society.

Stoller carefully lays out the modern sociocultural/sociodigital context for the application of creativity and intelligence. In doing so, he illustrates not just the ability of exceptional genius to affect change, but our collective dire need for them to do exactly that.

— **Terry Heick**, Founder and Director of TeachThought.com, author of *10 Ideas in Pursuit of a Global Curriculum*

On exceptional occasions at best, a work is produced that gives the world a glimpse at an explanation of it all, some grand analysis in an otherwise incomprehensible world. Stoller has done just that with *Becoming Supergenius: Creativity and Transformation*. By combining the experiences and words from thirty-five “supergenuses” and then weaving them together in his own authentic classifications, he has created a comprehensive guide to being.

— **Alexander Khost**, Founder of Voice of the Children NYC, and Flying Squads, and organizer at Alliance for Self-Directed Education

Also by Lincoln Stoller:

~

The Learning Project: Rites of Passage

Becoming Lucid: Self-Awareness in Sleeping & Waking Life

The Path To Sleep: Exercises for an Ancient Skill

COVID-19: Illness & Illumination

Becoming Supergenius, Part II: The Inner World

Becoming Supergenius

Creativity and Transformation

328 secrets from 1,600 years of experience

Part I: The Outer World

by

Lincoln Stoller, PhD, CHt



“To live is to think.”

– **Marcus Tullius Cicero**

“The most pressing task is to teach people how to learn.”

– **Peter Drucker**

BECOMING SUPERGENIUS

PART I: THE OUTER WORLD

First Edition.
Published 2021 by Mind Strength Balance
Victoria, British Columbia, Canada
<https://www.mindstrengthbalance.com>

Copyright © 2020 Lincoln Stoller, All rights reserved.
Except for brief excerpts in reviews, no part of this book may be reproduced in any form, or by any means, electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system, without the written permission of the publisher.

Stoller, Lincoln, 1956- author.
becoming supergenius, part I: the outer world, creativity and transformation / Lincoln Stoller.

Includes bibliographic references.

ISBN 978-1-7774204-3-7 (mobi) | ISBN 978-1-7774204-2-0 (epub)
ISBN 978-1-7774204-0-6 (paper) | ISBN 978-1-7774204-1-3 (hard cover)
ISBN 978-1-7774204-4-4 (audio)

Subjects: LCSH: Creative Ability. | Self-actualization. | Wisdom. | Genius. | Learning.

Cover Art:
etching Albrecht Dürer
tinting Polina Hrytskova

To my sons.

Table of Contents

Part I: The Outer World

Acknowledgments	xxiv
Guide To The Reader	xxv
Preface to Part I	I
Where We Start	
Where We Go	
The Paths We Take	
Where We Arrive	
The Supergenius	
The Structure of the Books	
1. Read a book like you would do exploratory surgery.....	8
I – Definitions	10
Introduction	
Learning	
2. If your understanding isn't growing with your learning, then you're not learning, you're training.....	11
Schooling	
3. Self-awareness lies at the root of all learning.....	14
Education	
4. There is nothing wrong with schools and they can't be fixed.....	16
5. Learn through networks.....	20
Transformation	
6. You can't judge whether something is important to learn until after you understand it.....	21
7. Measure how well you learn not by what you can remember, but by what you can imagine.....	22
Development	
8. The only learning you need is that which changes your life.	26

2 – Attitudes

29

The Landscape

- 9. See connections everywhere.....30
- 10. Recognize that everything is learning.....31
- 11. What is real for other people is only real to them and those around them.....32
- 12. Be a victim.....33
- 13. It's better to be fooled and know you're fooled.....35
- 14. Discover what you need to learn.....37
- 15. Be aware of the attractions of pleasure.....38
- 16. Don't believe what you're told.....40

The Future

- 17. Everything is art.....42
- 18. Work to find your roots.....44
- 19. Unclutter your mind.....45
- 20. Change direction rather than giving up.....46
- 21. Don't let your ideas grow too fast.....50
- 22. Accept yourself as a failure.....52
- 23. Your situation will develop along the lines of your thinking.....54
- 24. Engage practice; avoid repetition.....57
- 25. Avoid awards and celebrity.....58
- 26. Develop your subtle senses.....59
- 27. Get a lot of sleep, more than you think you need.....62

3 – Actors

64

Introduction

- 28. Change is harder than you think.....64

Teachers

- 29. Look far beyond what's offered to you.....65
- 30. When you learn something by yourself, you learn it deeply.....67

Students

- 31. Manage your own identity.....70
- 32. Explosive emotions are not okay.....72

Agents

- 33. You cannot fully learn from the mistakes of others.....74
- 34. Be aware of what virtual worlds teach.....76

Mentors

- 35. Begin what interests you, then look for mentors.....79
- 36. Be outgoing, confident, and declarative.....81

Explorers

- 37. If schooling is learning how to behave, then exploration is otherwise.....84
- 38. You are on the road to mastery when you learn from everything.....86

People

- 39. Choose your friends judiciously.....88
- 40. Take note of subtle signals.....90
- 41. We don't recognize the most important messages.....91
- 42. Be aware of body language.....92
- 43. Attend to the eyes.....92
- 44. Find your rhythm and watch for the rhythm of others...93
- 45. Invite others to be present and equal.....95
- 46. Your relationship with yourself is shaped by your parents.....98
- 47. You will spend your life searching for your parents.....99

4 – Context

101

Purpose

- 48. The degree to which something is important determines the value of your effort.....102
- 49. Death is an ally.....102

Meaning

- 50. Becoming inspired will change your life.....105
- 51. Find inspired people.....107
- 52. The most important things are not taught.....111
- 53. Don't lie to yourself.....111
- 54. When commitment fails, truth fails.....112
- 55. Everything is a network; look at the connections.....113

Benefits

- 56. Thinking big allows for more possibilities.....114
- 57. There is always resistance to change.....115
- 58. If you don't have control, someone else does.....116
- 59. Explore standards.....117
- 60. Learning is an exploration of feelings.....118

Needs

- 61. Your greatest insights into yourself reside in your feelings.....121
- 62. You find abilities where you give yourself permission to look.....122
- 63. Find novelty.....123
- 64. Take charge.....124
- 65. Do what's different.....125
- 66. Engage with people who do things that interest you...126

Skills

- 67. Have a personal standard.....127
- 68. Avoid compromise.....129
- 69. Understand integrity.....129
- 70. Create truth.....130
- 71. Pay attention to the asymmetries of your body.....131
- 72. Develop situational awareness.....133
- 73. Develop strategic awareness.....134
- 74. You're aware of what you're engaged in.....136

5 – Paths

137

Starting Out

- 75. Truth, trust, and honesty are all different.....137

Trading

- 76. Accept a stalemate.....138
- 77. Aim for emotionally positive opportunities.....139
- 78. Fail often, quickly, and in small ways.....140
- 79. It's worth losing the battle if that's what it takes to win the war.....141
- 80. Practice thinking about several things at once.....142
- 81. Speak for yourself.....144
- 82. Take more than your share of the responsibility.....145
- 83. The best way to resolve your differences may be to blame someone else.....145

Markets

- 84. Don't believe the advertisement.....146
- 85. Establish a beachhead for a push to future success.....147
- 86. Become aware of how you set your direction.....149
- 87. Pay attention to how you're answering the world.....150

88. If you invent a better mousetrap, the world will not beat a path to your door.....	152
89. It's better to be not understood, than to be misunderstood.....	153
90. Opportunities are like auctions.....	154

Resources

91. Do what you find hard to talk about.....	155
92. Imagine the details.....	155
93. It's usually counter-productive to ask why-questions...	156
94. Learn to use resource materials.....	158

Expectations

95. Be attentive to what you're getting.....	160
96. Be careful what you ask for.....	161
97. Be grounded in the future.....	162
98. If you hope to make a difference, don't expect to know what you're doing.....	163
99. Most people are looking for the wrong thing.....	164
100. Hope nothing; trust no one.....	165
101. Talk about what you find hard to do.....	166

Judgments

102. Align your vision with the interests of others.....	167
103. Always ask, "How is this useful?".....	168
104. Being alone is productive.....	171
105. Don't be depressed by the negative.....	172
106. Decisions are like children.....	173
107. Distinguish criticism from dislike.....	174
108. Don't believe everything you think.....	175
109. Don't believe everything you think about yourself.....	176
110. Evil is an enigma.....	178
111. Judge people by their intentions.....	180
112. Winning a rigged game makes you stupid.....	181
113. Playing a rigged game makes you successful.....	182
114. Look for what's wrong with the facts.....	183
115. Take all criticism positively.....	184
116. Clear criticism so it does not clog up your mind.....	186
117. The only person guaranteed to support you is yourself.	187
118. There are five parts to every solution.....	188
119. Trust your judgment.....	191

6 – Encounters	193
120. How is skill recognized?.....	193
Community	
121. Learn for your own benefit.....	194
122. Work toward collaboration.....	195
123. Choose the thoughts you expose yourself to.....	197
Robots	
124. People project their feelings, issues, and visions.....	199
125. Social attitudes have a life of their own.....	201
126. Discover what others see as your strengths and weaknesses.....	202
127. Thinking is in conflict with a full and meaningful life.	204
128. Don't attempt to solve what you think is the central problem.....	206
129. Pay attention to how you're being heard.....	206
130. Efficiency is not enough.....	208
Stimulation	
131. Read too much.....	209
132. Don't read too much.....	211
133. Inoculate yourself against computerized entertainment.	212
The First Step	
134. Outline a lot.....	213
135. Don't overlook the details.....	214
136. Do the most with the least.....	215
Perspectives	
137. The more important something is, the less straight forwardly you can think about it.....	216
138. If you have your own ideas, expect resistance.....	217
139. Endeavor to make a difference.....	217
140. At its root, every tool is a compromise.....	218
141. When you get something new, try to break it.....	219
142. Inspiration, practicality, and value are separate aspects of innovation.....	220
143. The benefit of being childlike.....	221
144. Make toys.....	223
145. Be your own ally.....	225
146. People don't listen to unimportant things.....	226

147. Try to understand the struggles and successes of other people.....	227
148. Be gentle with new ideas.....	228

Emotions

149. Protect your emotional identity.....	229
150. Emotions are not secondary.....	230
151. You have emotional control.....	231
152. Allow yourself your inner conflicts and ensure the space for them.....	232
153. Be emotionally connected to everything you do.....	233
154. There are larger movements afoot than you know.....	235
155. The 5-10-85 percent rule.....	237
156. Engage with the world and do what calls you.....	239
157. When you find the resources you need, you will have to fight for them.....	241
158. Be flexible and resilient.....	244
159. Don't assume that you know who you're talking to... ..	244

Stress

160. Be dissatisfied with being bored.....	247
161. Learn to control stress.....	248
162. Get mental exercise.....	249
163. Exercise your body to improve your mind.....	250
164. Perfect your sleep as a state of mind.....	251

The Law of Attraction

165. Recognize your role in what you see.....	253
166. Learn your unconscious habits.....	254

Abuse

167. Never compromise your integrity.....	257
168. If you're feeling exploited, the whole situation is to blame.....	260
169. You bear responsibility for your exploitation.....	261
170. Stress will make you sick.....	262
171. Recognize three forms of stress.....	262
172. Recognize your stress limit.....	263
173. Take care of yourself.....	265

7 – Behaviors

Growth	
174. Position yourself in a growing field whose subject deeply interests you.....	269
Marketing	
175. New ideas don't sell.....	272
176. Learn to recognize what other people want.....	274
177. Nurture and protect what excites you.....	275
Tests	
178. Don't fear fair tests.....	278
179. Recognize the purpose of a test.....	279
180. No doesn't mean no.....	280
181. Yes doesn't mean yes.....	282
182. Use your eyes.....	284
183. Use commitment to measure insight.....	285
Habits	
184. Break learning habits.....	286
185. Procrastination isn't a bad thing.....	286
186. Break up daunting tasks.....	288
187. Simplify.....	288
188. Listen to your body.....	290
189. We present false personalities.....	290
190. Don't grouse about the misbehavior of others.....	291
191. Respect those who disrespect you.....	293
192. Be a racist scumbag.....	293
193. Don't stop.....	294
194. Understand attention.....	296
195. Focus and convergence are entirely different.....	298
8 – Summary	300
References	303
Quotation Index	307
About the Author	310

Part II: The Inner World

Preface to Part 2

I – Thoughts and Perceptions

Ideas

- 196 – Think beyond yes or no.
- 197 – Duality is not dichotomy.
- 198 – Be aware of your whole mindset.
- 199 – Math is not about numbers, it's about thinking.
- 200 – Avoid group thinking even when you feel compelled to conform.
- 201 – Everything you see clearly, you see through some filter.
- 202 – Are you the creator of your own problems?
- 203 – Distinguish good from bad ways of thinking.
- 204 – Let your mental states change.

Mind

- 205 – Intuition favors the quiet mind.
- 206 – Boredom leads to disconnection.
- 207 – Think with thoughts, not words.

Feelings

- 208 – When you're unclear, you're wrong.
- 209 – Don't doubt your desires.
- 210 – Strive to remember.
- 211 – Make note of your feelings.
- 212 – Pay attention to how things feel.
- 213 – Hear your fear and deal with it.
- 214 – Where did you lose your intuition?

Inclinations

- 215 – Similarity and proximity: inferring connections.
- 216 – Parsimony and closure: making things good.
- 217 – Continuity and connection: projecting beyond the known.

Actions

- 218 – Work to develop different skills.
- 219 – Recognize the goals for which the rules are designed.
- 220 – What's commonly presumed is logically flawed.
- 221 – Use poor information when necessary.

222 – Expect to vacillate.

223 – Slow it down.

2 – Perception Bias

Anchoring

224 – Recognize the assumptions.

Sunk Cost Fallacy

225 – Admit failure often and quickly.

226 – Leverage Failure

Attention Makes Things Real

227 – Aim for failure.

228 – Distraction causes distress.

229 – Control fear.

Backfire

230 – Strive to see something useful in any criticism.

Barnum

231 – You see everything through some filter.

232 – Don't doubt your desires.

Cherry-picking

233 – Be aware of how you remain in the neighborhood of the familiar.

234 – What works is not true and what fails is not false.

Confirmation

235 – Confirm, don't justify.

236 – Don't ask friends for advice.

Confusing Appearance with Reality

237 – Pay attention to what you think is real.

238 – Deeply consider new ideas.

239 – Share what you know and learn.

Declinism

240 – Don't let your conclusions control you.

241 – Disguising your feelings.

242 – Communicate your emotions right away.

Framing

243 – Endeavor to remember how you feel about important events.

Halo Effect

244 – Be an astute listener.

245 – Gamify learning situations.

Ignorance Error

- 246 – Judgment is always flawed.
- 247 – Design your own rules.

Negativity Aversion

- 248 – Discomfort is necessary; comfort is optional.

Overestimating Others

- 249 – Assume you're misunderstood.

Feeling Unbiased

- 250 – Imagine what you don't perceive.

3 – Presentation Bias**The Fallacy of the Obvious**

- 251 – Address situations with faith in yourself.

Dunning-Kruger

- 252 – Give weight to your insight.
- 253 – Be disputatious.

Reactance

- 254 – Defuse destructive criticism.
- 255 – Criticism is often incorrect.
- 256 – Digest criticism.

Weak Placebo

- 257 – Things true in one situation are false in another.

Strong Placebo

- 258 – What's presumed is usually flawed.

Bystander

- 259 – If you see an opportunity, take it.

Self-serving

- 260 – Heartbreak is empowering.

Narcissism

- 261 – You are less competent under stress.

Low Self-Esteem

- 262 – Love yourself.

Groupthink**Cohesion**

- 263 – Work to develop different skills.
- 264 – Be considerate to machines.
- 265 – Avoid groupthink, even when you feel compelled.

Future Projection

- 266 – Examine your assumptions.

- 267 – Be aware of how you're heard.
- 268 – Create change.
- 269 – Make it up as you go along.

4 – Gender

Gender and Authority

Violation

- 270 – Consider sexuality in the affairs of people.
- 271 – To get past differences, see things from an opposing point of view.
- 272 – People of different genders think differently.
- 273 – You find what you expect to see.
- 274 – Women are more susceptible to stress.
- 275 – Manage brain fatigue.
- 276 – Get over differences quickly.
- 277 – Distinguish between conflicts of values and conflicts of valuation.
- 278 – Men focus on conflict. Women focus on support.
- 279 – The prejudice you dislike is your own.
- 280 – The victim always plays a role.
- 281 – The assaulting male acts out of fear or greed.

5 – Journey

Skill

- 282 – When you focus on making a difference, you become an expert.
- 283 – Don't focus only on the present.
- 284 – Solve problems with the same thinking that got you into them.

Multi-tasking

- 285 – You can't multi-task, but you do, and you should.
- 286 – Look at your situations as if they were a game.
- 287 – The better player does not try to win.
- 288 – Always be testing.
- 289 – Perfection is for idiots.

Evolution

- 290 – Tune your expectations.

Dysfunction

- 291 – Don't be neurotic, be grounded.
- 292 – Don't be psychotic, be centered.

- 293 – Don't be depressed, be real.
- 294 – Find your insanity and tame it.
- 295 – Find and follow the cycles.
- 296 – People don't change, for the most part.
- 297 – People do change, but just barely.

Creativity

- 298 – Be creative.
- 299 – Live in confidence.
- 300 – Live in self-respect.
- 301 – Look for guidance, not inspiration.
- 302 – Be committed to the work.
- 303 – Develop your sense of value.
- 304 – Develop an independent sense of direction.
- 305 – Feel the contrast between the high and the low.
- 306 – Patience.
- 307 – Resilience, the ability to recover from lows.
- 308 – Have an independent sense of appreciation.
- 309 – Be curious.
- 310 – Don't be too cautious.

6 – Arriving

Coming Home

- 311 – Change is energy. Move toward change.
- 312 – Beware of patriotism.
- 313 – The need for money fills an emptiness in the soul.
- 314 – The secret of success is a non-attachment to results.
- 315 – Act from your core.
- 316 – Acting with faith is not wishful thinking.
- 317 – Don't set yourself the goal of achieving a difference.
- 318 – Wider is more important than deeper.
- 319 – Find wisdom, embrace ignorance.
- 320 – Welcome discouragement.
- 321 – Feel grateful for the stupid.
- 322 – Fix broken bridges.
- 323 – Recognize the source of conflict.
- 324 – Recognize the potential of silence.
- 325 – Think for yourself.
- 326 – Have the courage to do it your way.
- 327 – Try it, you might like it.
- 328 – Don't be in such a hurry.

7 – Summary

Departures

Return

Transitions

8 – Looking Ahead

Conscious Learning

Conscious Thinking

Lateral Thinking

Subconscious Thinking

Nonthinking

Dreaming

Acknowledgments

Thanks to all those who contributed to *The Learning Project*. I am beholden to the elders, most of whom have passed on; and to the younger ones—still being formed in the crucible of adulthood—who may not realize the importance of their feelings and their voices. I hope these books will help you become strident in your wisdom.

Those contributors of middle age probably understand the importance of their insights. By bringing our voices together they are amplified. I consider you all mentors, and I think of you often.

Guide To The Reader

Becoming Supergenius consists of 328 indications about learning, thinking, and seeing the world that are drawn from my experience, the wisdom of others, and the 35 interviews in my previous book, *The Learning Project*. The purpose of *Becoming Supergenius* is to reveal, condense, and clarify true thinking in an inclusive and instructive format. It's your genius that is at issue.

This material applies scientific thinking, the psychology of mind, and many people's experience; all the ways and means of our minds: intellect, emotion, personality, gender, body, spirit, self-confidence, groupthink, power, fallacy, and prejudice. The work roughly divides into our relationship to the world and the world within us.

The opposite of any deep truth is another deep truth, and my object is to present both in each case. I don't claim to be complete, I aim to be comprehensive. I don't aim for certainty, I aim for clarity, but it comes at a cost: you have to think about it. If you reach contrary conclusions, you are succeeding.

Preface to Part I

Where We Start

We remember traumatic events, sometimes so clearly we have to forget them. To help in forgetting them, we mix them up. Memory is malleable and that's important. We don't remember in order to know what happened; we remember in order to know what to do.

I remember standing on the sidewalk, looking toward the long, low building that was Midland School. At the far left end was the sixth grade, and at the far right end was the kindergarten where I was headed in my first year of school. I remember it as my first day but it was probably some other day. In any event, it's the first day of school that I remember.

As I looked at the building, I wondered why school had to be so awful. I wished I could go to Summerhill, the English boarding school where kids could do whatever they wanted. It actually would have been possible, but I was only five and I didn't know. I have no idea how I knew about Summerhill.

That was one of my earliest memories of asking why things were how they were, and why they couldn't be otherwise. The deeper question was how to find satisfaction. The answer I was heading toward—but didn't know at the time—was that I was only satisfied by learning.

I learned stuff in the subsequent forty-five years, but I still wondered what to make of it. I wondered why I learned, and how I learned, and what fundamental thing learning was. I made learning about learning into a project, and, since I had met a number of people whom I really admired, I resolved to ask them.

That was the start of a project whose thirty-five interviews I gathered into a book titled *The Learning Project, Rites of Passage*. It was clear that through all my reading and experience, no one knew how learning was done, what it meant, or why it was important. It was clear that there was and should not be one answer to each of these questions.

In *The Learning Project* I asked accomplished people of all ages, interests, and backgrounds what these questions meant to them. I asked not for answers but stories: how each person learned and how it's been important to them. Thirty-five people, ranging in age from 16 to 94, with over 1,600 years of accumulated learning.

Learning means different things to different people, and it is not my right to extract just one meaning. The best answer I've found is that learning is the pursuit of the meaningful. Meaning has a different texture for every person. The stories told in *The Learning Project* are fully textured. The 328 points given in here are conceptual, sterilized. They are easier to understand but, because they are disconnected from a person's life, each must be fit into your life's story.

The Learning Project is a diamond with thirty-five facets. The question of learning enters like a beam to be reflected into the rays of different people's opinions. The image created within the space of these rays—inside the diamond—is the hero's journey.

Where We Go

The steps in this journey are the things we learn in order to recognize our full potential, the means for discovering our full nature. They comprise things that can be put into words and practical steps that we can take. I suggest that many of these things we either don't know or don't know well. The path to self-discovery has been hidden from us, and it's hidden for interesting reasons.

The process of learning what to do to manifest our full potential is related to learning how to think. It requires that we explore where our thinking comes from, and how much control we have over what we think. We find that much of our thinking and many of our conclusions are not our own. Ways of thinking are hammered into us through repetition, trauma, need, denial, frustration, enticement, and reward. They are the cultural ideas and attitudes that hold the culture together. They don't serve us individually; they serve the culture.

The universe evolves through the oscillation of action and potential. The increase in potential appears as structures condense and evolve. You take the energy of action, learn from it, arrange with it and create things of greater complexity. We create structures in our minds and harvest energy to hammer them together. Energy is released in the destruction of existing things, as the exploitation of resources is an action of disassembly. You've got to both assemble and disassemble, and this is a guide for surviving the process.

The Paths We Take

Thinking is a complicated process, more complicated than we understand. There is truth to every thought and some context in which every thought makes some sense. Every structure exists for some

reason, but we are nowhere near understanding the full truth of things. We learn by examining how things are put together.

We don't want to examine every idea as many are not important, but we don't want to only focus on the important few because we need the background. We want somewhat reliable directions in how to think about things. We're not looking to be enlightened—a concept that's always beyond what we know—but a schematic for right thought and action.

This schematic breaks the learning process into the learning situations of our lives. There are places we learn in, people we learn from, situations we are subjected to, and resources we learn with. There is a chaos of forces and, in this forest of possibilities, there are trail markers and compass bearings.

There are many ways to prepare and many places at which to start. There is what we remember of the thoughts and feelings we started with as children. There is where we were when we began to think for ourselves and the role models we had, if we were lucky enough to have any. And there are the obstacles we encountered and what we learned from them. We can be constantly beginning if we choose to. Every new tool deserves our greatest respect.

This book draws ideas from *The Learning Project* and organizes them into chapters. Other ideas have come to mind in the process, and still others came in on the wind of their own accord by reference or investigation.

Each idea is explored in its own right without any attempt to build it into a larger structure. Things are left in their generality for you to apply or reject. This is a toolbox, not a lesson plan; an armamentarium for all occasions.

Becoming Supergenius has grown like a forest on fire scorched land. The barren land is the current state of learning, teaching, and education. This is not a small matter; this shapes the future of our species.

I have roped off certain areas for reforestation and I've called them chapters, but there is an element of arbitrariness to the lines I've drawn. All these ideas are related, even if they seem out of place. Ideas sprout from other ideas and ideas far removed complete them. These ideas share the relationships between living things: some are mutualistic and strengthen each other, others are parasitic and destroy each other, and others are saprophytic in their being the outgrowth of failure. Think of learning as building an ecology.

Each chapter is an attitude toward learning, and each learning secret is a world of its own. Some will nourish you, some you might find tasteless, and still others might poison you. They are ingredients. Combine them into your own recipe and don't feel obliged to use them all.

The closer you scrutinize how I've divided the subject into chapters, the more collaborations, competitions, and contradictions you'll find. Because learning happens at all levels and in all directions, I try not to over-explain it.

Where We Arrive

You might expect all these secrets will lead to a learning paradise, but they don't; the hero's journey leads back home. We come back to where we started. We don't learn, protected in hallowed halls at the feet of masters; we learn in the real world, as it is, full of contradictions.

There are a million journeys. Some are glorious and some are terrible, as *The Learning Project* demonstrates. The object is not happiness, it's more than that.

This book does not give you the map for your journey. It only tells you how to rig and trim the sails, and the obligations of a sailor. No matter how glorious or miserable you feel about your journey, it's your journey, and you were made for it.

It's you that changes, in the end, not the landscape. You arrive back in the same family and culture that you left. It's your odyssey, and you are changed by it, but when you change, you change others. When called to make this journey you really have no choice. You have to go, and you can complete it.

The Supergenius

A supergenius is not an expert. Supergeniuses are not welcome in expert society. A supergenius is a loner, outsider, and disrupter, and such a person is rarely recognized for what they know or rewarded for what they do. Some supergeniuses lived to participate in the revolutions they started, such as Confucius, Newton, and Picasso. Others did not, like Vincent van Gogh, Leonardo da Vinci, and Giordano Bruno. And there are thousands, I am sure, who will never be known at all.

That the work of most supergeniuses goes unrecognized until well after his or her death underlies the "100 monkey theory." According to this theory, it takes one hundred of the same discovery before an idea can gain a footing in the collective mind. It is only then that a novel idea can achieve the subliminal resonance, metaphoric importance, and social interest that's required to support a community of experts.

John Taylor Gatto, a supergenius in the field of education, says geniuses are as common as dirt. Supergeniuses appear to be less common because they frequently go unrecognized. Practicing the ideas in this book will help you become a supergenius, if that's what you're

inclined to do, but it won't help you become famous or successful. Those accomplishments require a more common mentality.

The Structure of the Books

These learning secrets are drawn from interviews I present in *The Learning Project*, *Rites of Passage*, as well as the others I encountered along the way. The task of listing all the major aspects of learning, which seems impossible, was made possible by filtering the experiences in *The Learning Project*.

That book presented the insights of 35 people of all ages, and interests, coming from all social, cultural, and political perspectives. Not fully all but close enough. And while none of those interviewed were attempting to explain all their secrets, they all focused on how they learned what was most important. This allowed me to extract the important points, as I understood them. This gave me an outline, which I then filled in.

This book is presented in two volumes whose content comprises a whole that has been split down the middle. The first volume, subtitled *The Outer World*, addresses the learning situation and the environment in which we find ourselves. It addresses the basic definitions of education, learning, teaching, as well as the structures of the institutions that provide these. These are the practical issues.

The titles of the chapters are: Definitions, Attitudes, Actors, Context, Paths, Encounters, and Behaviors. I address the attitudes people have about learning, the actors and agents we encounter in our attempts to learn, where we find these people, and how they behave. Overall, people don't think much about thinking, or what makes them think and act the way they do.

This division into the outer and inner worlds is not hard and fast, it's rather a turning inwards. At first there is the situation in which you find yourself, what you perceive, and how you react. Then, there is the issue of how you think about what you encounter, how you react, and the extent to which you're aware of yourself.

The second volume, subtitled *The Inner World*, leans toward the how, what, and why of our inner thoughts and feelings. The goal is to understand ourselves. The chapters in the second volume are titled: Thoughts, Perception Bias, Presentation Bias, Gender, Journey, Arriving, and Looking Ahead. The focus is reflective: thinking about ourselves, what we're doing, how we're thinking, and why.

A few years ago I gave a public lecture titled "Learn To Think," and invited sixty psychotherapy colleagues. Two people attended: a mother and her 13-year old son. This accurately reflected the greater self-awareness of young people, and the lesser self-awareness of adults. Most adults are frightened by the chaos of deep learning. Most adults won't admit they think poorly.

Learning is relevant for everyone, but it's mostly adolescents who recognize that what they learn is constrained by how they think. Distilling this material down to a single phrase yields, "Think like a child."

"The first half of life is learning to be an adult—the second half is learning to be a child."

— **Pablo Picasso**, artist

1. Read a book like you would do exploratory surgery.

Many people who have something valuable to say are poor at saying it. Don't let the way someone puts together the ideas you

need keep you from finding them. Follow your intuition. Scan pages and let words pop out at you.

Look for what might be of use to you with some idea in your mind of what you're looking for. You see much more than you're aware of and you'll find things will light up if you keep your mind clear of extraneous thoughts. The more clearly you have things in mind, the more likely these things will find you as you page through the book.

Writing a book is a responsibility and having a reader is a privilege. Don't struggle with a book that fails to cooperate. If the section you're reading is dense, frustrating, or unenlightening, skip it. Ask yourself how you might use the material. Many of the ideas you're looking for will be your own. Read lightly and give yourself space to think.



I – Definitions

Introduction

Language emerged from emotional awareness and we use it to fight an uphill battle to achieve and maintain clarity. Most of what we talk about we refer to, point at, and hold separate from us. For this reason, when it comes to what we hold close, we rarely know what we're talking about.

Moments of clarity are an epiphany that allows us to feel a deep truth... but we still don't know how to talk about it and, the more deeply we experience something, the harder it is to communicate. If you think about how well you can communicate a deep thought you'll appreciate that words don't communicate well.

There is then the question of whether we've been understood, and that is even more uncertain and unpredictable. Here, I'm writing a book, and I have no idea what you're thinking. I have to make myself clear, consistent, and gradually include deeper and more meaningful ideas. I don't have to be right, and I don't have to make sense, but I do have to be transparent so that you can understand me. I will do that.

Thoughts are a like pictures, they have many perspectives, varying levels of detail, and rest on presumptions about what and how another person sees. The chapters in this book rest on definitions that clarify, even if they don't fully describe the contents of the chapters.

If you get a chance, listen to the song of the hummingbird. The song of the ruby-throated hummingbird sounds like it's built of words, but even if we knew the words, I don't believe we could ever fathom their meaning.

Learning

We overlook the big things—like love and humanity. Learning is such a thing, it has many aspects. Learning, in general, is the process through which we grow and change in all respects. This book is about learning as it affects us most deeply.

“The more we know and the more skilled we are, the more we can learn.”

— **Nils Nilsson**, PhD, computer scientist

2. If your understanding isn't growing with your learning, then you're not learning, you're training.

Learning is about the relationships between things, not facts. If you're learning new facts but they're not creating in you a better understanding, then either you're simply accumulating data, or you're wasting your time. Distinguish how much of each is happening in order to accept what's useful and avoid what's not. If it's just data, store it in a machine; if it's not just data, then reflect on the insights and opportunities it will avail.

No one knows how to teach the important things. These things are too deeply rooted below the level of thought and language: love, trust, and insight, for example. We're supposed to learn by instinct, in the way we learn how to walk, but when it comes to applying our intellect, learning is not innate and not assured.

“I learned so much about myself from being there, just from lying in that heap of leaves...”

— **Ella Gerazuk**, student, from *The Learning Project*

“To ask for an explanation is to explain the obscure by the more obscure.”

– **Maurice Merleau-Ponty**, PhD, philosopher

Motivation underlies learning, and people are motivated by comfort and curiosity. Comfort aims for pleasure and sedation, while curiosity aims for excitement and stimulation. They are not exclusive—the greatest rewards come when we achieve the two together—but we pursue them separately. These two motivations underlie most of our reasons for learning anything.

The poles of sedation and stimulation define our sympathetic and parasympathetic nervous systems. These opposing poles are, in part, mediated by sedating and activating hormones as well as inhibitory and excitatory neurotransmitters. Relaxation and stimulation form the foundation of our behavior. When the structure of our learning is not built to satisfy sedation and stimulation, it works against our nature.

Modern schooling fails in this regard. It is largely sedating and inhibitory. It more discourages than encourages our expansion. Natural play, as well as the exploration of nature and other complex systems, engages both our attractive and defensive drives. Learning lies somewhere in the resonance between expression and restraint.

New thoughts form as old ones fall away. If training is holding all things constant and changing one aspect of behavior, then learning is letting many things readjust and reform into a new whole, a new understanding.

“The best education consists in immunizing people against systematic attempts at education.”

– **Paul K. Feyerabend**, PhD, philosopher

Schooling

In addition to extinguishing curiosity, traditional schooling fails in five other measures, as well. First, its emphasis on reading, writing, and arithmetic is antiquated.

Second, shoehorning everyone toward a level of minimal competence that suits no one reflects the 18th-century prerequisites of the early industrial age. These are not necessary skills for an individual or for the future, they reflect a level of skill that was lacking and needed in the past.

Third, school fails massively in fostering creative intellectual skills. This includes the entrepreneurial skills of money, marketing, enterprise, investment, information, and authority management. It also includes the creative skills of science and engineering.

Even today, art class remains focused on visual effusion. Forty years ago, people ridiculed basket weaving classes, which were a first step in recognizing the art in engineering. Only recently, with the expansion of STEM curricula (Science, Technology, Engineering, and Math), has education grown up to see the need for art in everything. Even now, art continues to exist outside of academics, as if there was no place for art in reading, writing, and arithmetic; as if music and math were unrelated.

“There were no sex classes. No friendship classes. No classes on how to navigate a bureaucracy, build an organization, raise money, create a database, buy a house, love a child, spot a scam, talk someone out of suicide, or figure out what was important to me. Not knowing how to do these things is what messes people up in life, not whether they know algebra or can analyze literature.”

— **William Upski Wimsatt**, author and activist

Fourth, school works to disintegrate the organic relationships that exist between individuals within families, communities, and cultures. In a natural environment, learning emerges from one's role in these groups so that learning emerges from, and in the service of, sustainable relationships.

And finally, fifth, traditional schooling is oblivious to the difference between outward attention, in recognition of the environment, from inward attention, which serves the development of the self. The segregation of self-awareness from schooling continues the perennial misidentification of spirit with religion, which reflects people's own misunderstanding of spirit within themselves.

The focus of traditional education has been, and largely remains, the creation of human-based automation: training people to do what machines could not do in the industrial age. These tasks are now done by machines, or soon will be, making these limited, basic skills insufficient and sometimes unnecessary.

“I am beginning to suspect all elaborate and special systems of education. They seem to me to be built up on the supposition that every child is a kind of idiot who must be taught to think.”

— **Anne Sullivan**, teacher and companion of Helen Keller

3. Self-awareness lies at the root of all learning.

Self-awareness grows as your environment grows and you see yourself playing a larger part in it. Many things that have a great impact on who we are and how we operate are obscure and uncertain: deep emotions, early life memories, questions that we don't know how to ask. Reflect on your own thinking

process and appreciate that how you think sets the context for what you see.

Self-awareness is one of the few activities that cannot be automated and remains outside the scope of traditional education. Traditional education is based on the model of an automated classroom. Personal development has a limited social aim, and teachers are trained to model their own limited self-awareness.

Learning is transformative when it focuses on more than acquiring knowledge. What you learn directs who you become, or who you feel you can become. Learning can be a process of bringing into existence something in yourself that does not yet exist. We might call this curiosity, empowerment, inspiration, or maturity.

There are socially acceptable ways to express enthusiasm and appreciation is given to those who most express what other people want. Your personal experience, which is unique to you, will not be as well appreciated. Expressing ever more personal values, which develop along with your self-knowledge, generates increasingly less social rewards. Self-learning is only rewarded as a personal passion.

“To keep working towards that, day by day. Allow life to be the fabric of a giant, potential canvas: life as theater, to cast ourselves in new roles, to write new stories for ourselves.”

– **Phantom Street Artist**, graffiti artist, from *The Learning Project*

Education

All schools that are designed within the context of what we now call schools will fail in the current global environment. It is necessary to distinguish this failed model, which I call school, with the model's aim, which I call education. In the current environment, curiosity and exploration will be critical skills.

“It is a miracle that curiosity survives formal education.”

— **Albert Einstein**, PhD, physicist

Education describes something smaller than learning. The process of educating is one of providing material that is, or will be, useful for growth. Learning is the transformation that this material might foster. One might get an education in ancient Greek literature without learning much. In contrast, I know people who have learned much without any formal education.

4. There is nothing wrong with schools and they can't be fixed.

There is nothing wrong with horses, and they can't be fixed, either. Both current schools and horses are now obsolete as vehicles in the domains where they were introduced. Schools were designed to automate training at a time when many people needed to be trained. People were needed to run and maintain machines, and schools were designed to produce those people. Leaders and creative people—the few that were needed—were cultivated through other means.

Since its inception, modern schooling was, and still is, a feeder mechanism for an unbalanced and unsustainable human-dominated ecology. These hierarchical schools only succeed in

the hierarchical model. Institutions outside this school model—such as home, free, democratic schools, wilderness, apprentice, real-life, on-the-job, and leadership training—do not look like schools. While they develop skills to varying degrees, their focus is on growth, individuality, self-sufficiency, social balance, and creativity.

People who create the most opportunities for themselves are forward-thinking people. Forward thinking people recognize that the road they're on may end at any moment, or that circumstances may prevent them from traveling further. These people are not just working to build the road on which they're traveling, they're also building vehicles to take them beyond the end of the road.

Being forward-thinking is a mind-set. It's not usually something that you are at one point and then retire from being. Similarly, if you want to be forward-thinking but you have not been, then don't expect circumstances will arrange themselves to enable you to become forward-thinking in the future. It may seem like "the chicken and the egg" paradox, but in this case, the egg comes first: create forward thoughts first, only then can you create an environment to support them.

"I've concluded that genius is as common as dirt. We suppress our genius only because we haven't yet figured out how to manage a population of educated men and women. The solution, I think, is simple and glorious. Let them manage themselves."

— **John Taylor Gatto**, teacher

The expression, "The best time to plant a tree is twenty years ago; the second-best time is now," is an expression that applies to lost opportunities. The forward-thinking person is not worried about the best

time to plant a tree because they already planted one twenty years ago. Now, that person is trying to figure out what new tree to plant, and where to plant it. The expression is really about the future, not the past. It is saying that you want to be taking steps now to put you where you want to be in twenty years. Only you can properly execute this responsibility.

“Eleven different schools... and there’s not one that I’ve enjoyed. Their memory chafes like a slipping rope against the flesh of childhood... Why should I continue studying to pass examinations to get into a life I don’t want to lead—a life of factories, and drawing boards, and desks? In the first half of my sophomore year I left college to learn to fly...”
— **Charles A. Lindbergh**, aviator, from *The Spirit of St. Louis* (Lindbergh, 2003)

Hierarchical systems are not cyclic, they are consumptive. They have consumption at their foundation. They consume basic resources and build towering organizations. A hierarchy is only sustainable if it’s periodically torn down and rebuilt anew.

Eventually, at the top where there should be growth, there is only debris. Progress, such as it is, is based on needs the system has itself generated; there is no vision, and the system consumes itself. All the energy of the system, and all of the products of the hierarchy, have been used up, worn out, or dissipated. The goal of our modern world economy is comfortable survival. The end product of the modern world economy is heat and garbage, much of it toxic.

Just as the modern world economy exists by exploiting the natural environment, modern schooling exploits humans by creating human machines whose purpose is limited to the work they’ve been trained to

I – Definitions

do. They have no planned purpose beyond this goal. In the industrial model, people, as machines, are discarded, recycled, or retooled when obsolete. The purpose of people is a means of production.

There are sustainable alternatives. These are systems in which balance and continuity are higher goals than profit, such as community organization, network learning, and personal growth.

In community organizations, different specialists from the community work together to gather resources for future needs. The range of opportunities depends on the community's openness to change and the resources available to it. Community organization involves community planning and moves toward that plan. Some examples of organizations that can be communal are the legal system, law enforcement, insurance, and healthcare.

Network learning grows within a bounded network of resources, producers, and consumers. A network becomes sustainable when it includes recyclers to decompose outputs and supply new resources. Network learning exploits collaboration but depends on opportunities from outside the network. In it, human resources push outward toward new skills, territories, and relationships. Hunters, gatherers, explorers, and scientists follow the network learning model.

Personal growth is, ultimately, the system to which we all subscribe. If personal growth is your aim, then purpose and meaning are your guides. Since these are not ends that one can achieve and your search for them is not a parasitic use of resources, the path of personal growth does not end and the resources available are never exhausted.

It is unclear whether a community based on personal growth can succeed. Most utopian organizations make personal growth a top priority, but none have lasted more than a few generations. Most

religious communities consider personal growth a top priority and have the most success when they leave the means and goals up to each individual.

5. Learn through networks.

Today's ever more global environment is a feedback network in which each actor must understand both the patterns of things and the patterns of thoughts. It's not enough to have skills to solve known problems, you now need to know how to develop skills for unknown problems. Network, community, or personal learning models are more appropriate, sustainable, and adaptive than the existing hierarchical school models.

The school model measures success in focused areas. In a network model, success depends on creating a map of new territory through a process of flexible exploration. It's the difference between having a single direction versus mastering the art of diffusion. It's the difference between solving a problem according to a formula versus inventing a formula to solve a problem: winning the game versus designing the game.

“Mononucleosis was the biggest blessing, because otherwise I was... dying in that school. Getting sick and having people spend a little time with me, and recognize that maybe I did want to learn something, that I did have an inner life, because I certainly didn't have one at school.”

— **George Plotkin**, MD, PhD, engineer, neuroscientist, inventor, from *The Learning Project*

Transformation

This book is for readers who are learning or helping others learn: students, adepts, apprentices, adventurers, therapists, mentors, educators and—may God help them because the institutions that employ them won't—teachers.

Learning is transformation, which means this book's focus is not on how to gain knowledge better, it's about how to gain better knowledge. It's not the quantity of what you learn that generates a positive effect on you and your environment, it's the quality.

6. You can't judge whether something is important to learn until after you understand it.

You can't judge the value of what you've learned while you are undergoing change because your standards are changing. You can't assess the value of what you've learned until its effect is clear. You can only assess its value once you've gained insight from it. Tests that don't measure how your understanding has changed are not tests of learning.

You cannot judge what will do well for you when you are in the process of transformation because your ability to make judgments are changing too. Your view of your problem generally does not include its solution as finding solutions requires the insight you don't have. You must develop a nose for finding insight and the ability to discriminate between things you don't yet fully understand.

You can judge what feels important or right but you'll often have to store things away in order to later extract understanding from them.

Successful transformation rests on the accumulation of resources you won't yet know exactly what to do with. Nevertheless, it is essentially

important that you develop a skill in distinguishing what will be helpful to you, from what is toxic. This requires lateral thinking, which is thinking outside the box, and systems thinking, which is understanding what's holding things up.

Most teachers who follow traditional curricula justify the material they teach based on things they feel you are not qualified to judge. If you believe this, then you can't pass judgment on their qualifications, the materials, or their methods. In such a situation you can't develop the skills of discernment. If you're suspicious of the qualifications, value, or appropriateness of what you're being taught, then the safest approach is either to insist on enough information to make a judgment, or excuse yourself from further participation in an equivocal process.

“When he’s in town, [Colonel Lindbergh] will come to the service entrance and I’ll let him in, and he’ll sit there and look at The Spirit for 10 or 15 minutes, until it gets time to open, and then he’ll get up and leave. And every time he gets up to walk with me to the door he’ll look up at it and say, ‘I still can’t believe I made it.’”

— **Clarence W. See**, test pilot and aircraft mechanic, from *The Learning Project*

7. Measure how well you learn not by what you can remember, but by what you can imagine.

Imagination takes memory and projects it into the future. Memory is useful because we can imagine how to apply it to new situations. Raw, factual memory—to the extent that it exists at all—is a catalog of things that have little effect on you. The process of moving yourself forward, which is always accompanied by some change, relies on imagination.

We often fail to distinguish the routine from the innovative. We fail in this when we don't understand the problem and cannot judge what's necessary to solve it. Sometimes, we think it's just a question of being told the secret. Other times, we might recognize that the secret was unknown and someone had to discover it. And in yet other times, there was no secret at all because it was the wrong problem. These are three different types of obstacles that require different kinds of thinking and radically different kinds of learning.

Some people learn things just because they enjoy doing them repeatedly. I understand learning to dance is rewarding because it engages you with your body, or with new partners, or with partners in new ways. Certain skills reveal deeper puzzles and greater rewards through repetition. Such are the skills of throwing clay or working with wood because these materials have detailed and subtle properties. Practice results in improvement only when done with that aim. What an outsider sees as repetition is not repetitive to the adept, for whom new insights are unfolding.

My college physics teacher was fascinated by a famous calculation whose steps he would write it down in full, repeatedly, like a scribe recopying the same text. The calculation was Richard Feynman's second order, quantum field theoretic calculation of the gyromagnetic moment of the electron, and it is a calculation that stood for many years as the most accurate prediction of any quantity ever measured. The calculation requires twenty pages of algebra and days to condense the details to a single number.

My teacher memorized the calculation to the point that he could reproduce it in its totality in a couple of hours. He taught me how to do this calculation, and it took me months to fully understand what each term in these formulas represented and to understand the whole formula

as a physical process. I was stunned when, in my application to a particular graduate school, a professor at that school—his name was Max Dresden—refused to believe I could have reproduced the calculation. It was just a long series of steps and, to this day, I cannot fathom what was so unbelievable about my having repeated it.

I have always wondered why my teacher repeated this calculation over and over, repeating it almost like a psalm. Unlike a musical performance, a mathematical expression cannot be performed with ever greater subtlety, grace, and nuance. I was never sure what he gained from this practice. The best I can surmise is that, like an endlessly spinning Sufi dancer, this brought him a kind of mental transcendence.

“You see, you’re asking me how I go about things. I go about things in a way that has nothing to do with what universities teach. It’s very different from what universities tell you to do, what teachers tell you to do. You make it up as you go along, and God knows how it comes out; you don’t know... Play around. You play around.”

— **Jerome Lettvin**, MD, PhD, psychiatrist, engineer, and neuroscientist, from *The Learning Project*

Development

Our emerging understanding of human behavior and development—codified in the early 20th-century following William James, Freud, and others—occurred after public schooling was conceived in Prussia in the 18th and 19th centuries and then instituted in the West. Our understanding of human development is still evolving and is only vaguely appreciated. It has given rise to the holistic models of learning developed by the educators Ferrer, Steiner, Montessori; schools named

I – Definitions

Summerhill, Sudbury, and 8-Shields; and outdoor, leadership, and other humanistic programs.

Modern education recovers old understandings and attempts to inject it into our dislocated, modern culture. The effect of these models on mainstream education has yet to be felt. It still feels like real cultural change must wait for future generations.

“Rather than improve ‘school,’ maybe we should think of what students need to know to grow healthy communities, and work backwards from there. To do that, we have to be willing to leave ‘school,’ as we know it, behind.”

– **Terry Heick**, Founder & Director of *TeachThought*,
(Heick, 2020)

The secrets of learning have little to do with schooling, except with regard to making the best of limited resources. Deep learning is self-motivated. Any other form of learning is conditioning at best or damaging at worst.

This book digests my experiences and those I’ve learned from, to consider a balance between stimulation and reward, competence in modern skills, creativity, integrated relationships, and the development of the self.

Schooling has played an insignificant role for me, though this is partly a preference of style. I prefer to make my own mistakes in order to gain a deeper understanding, rather than gain through the filtered experience of others for a more superficial understanding.

It’s about developing a subtle perception of what’s good for you for your whole life. To accomplish this, you’ll need to discriminate between positively and negatively directed resources: those designed to benefit

you are gifts; those designed to exploit you are land mines. You'll also need to develop an appreciation of yourself and the scope of your life.

8. The only learning you need is that which changes your life.

Only the things that will change your life, or the lives of others, are worth taking up space in your mind or imprinting on your character. Things that change your life make you feel different. If you don't feel different as the result of learning something, then it probably wasn't worth the effort.

Change is adaptation and evolution. The skills needed are both the mechanism to manage change and the foresight to choose the right path. This kind of learning happens at several levels. A component of skill exists in your perception, discernment, balance, and dexterity. In addition, there is a skill at communication, presentation, or engagement. Finally, there should be an element of uncertainty, unfamiliarity, or unlimited possibility. To put it another way, change results from the combination of ability and intent. Either can be lacking, but both can be learned.

Change is a moving target you want to follow. When the target stops moving, the system settles to a consuming hierarchy. That is, at that point you stop striving and settle into a mode of consuming or assimilating. Your role changes from being the captain of your ship to a crew on someone else's. Your rewards then change from being personal and transformative, to being monetary, material, and hedonic.

When change ceases and the situation becomes static, the path of learning changes too. In many cases, this was the goal: to gain comfort, security, and stability and to ensure against future risk and change. This plateau could be a secure post in an organization, a retirement and

pension, or a comfortable routine. Learning is seriously curtailed once these plateaus are reached, as is tolerance for change.

Many people who plateau find themselves reconsidering the value of what they've achieved. They have navigated a maze and now they have reached the end. If the steps have been conscious and careful and you're not satisfied with what you've achieved, then you might retrace your steps and even carry your gains in another direction. But if your investment has been an exclusive commitment that has narrowed your community and identity, then there will be little opportunity to retrace your steps, redefine yourself, and create a different outcome.

The lure in finishing one's study, accepting a profession, and retiring is that you'll have greater freedom later. This is true to a limited degree, if it's true at all. Once you've reached a point of planned obsolescence there may only be limited opportunities, resources, and companions available to you; not to mention the continuing responsibilities you may have collected along the way, such as protecting your family, health, and assets.

“You have to figure it out for yourself. A lot of unhappiness comes from people using someone else’s ladder. You need to design your own ladder and climb that one. Otherwise you get to the top of someone else’s mountain and you don’t really want to be there.”

— **Esther Dyson**, journalist and entrepreneur, from *The Learning Project*

Equally important is not to expect that ladders of opportunity will always be available to you. Depending on your resources and circumstances, there will come a point where new opportunities are no longer available.

At that point, the opportunities you have are only those that you've built for yourself.

“What you’re supposed to do is work hard at what you don’t really like very much, and then later you get time to play. I never lived my life that way, and I could never imagine doing it. Let me do what I enjoy. Let me do what makes sense for me. Let me do what I feel fulfilled in. That’s always been the way I’ve been.”

— **Michelle Murrain**, PhD, neuroscientist, consultant, writer, activist, from *The Learning Project*



End of Sample



References

- Alexander, C. W. (2002). *The Nature of Order, Book Four: The Luminous Ground*. The Center for Environmental Structure.
- Bragdon, E. (2013). *Spiritism and Mental Health*. Singing Dragon.
- Christakis, E. (2013, Jan. 30). What the Pygmies can teach us about child rearing, *TIME*. Retrieved from: <https://ideas.time.com/2013/01/30/what-the-pygmyies-can-teach-us-about-childrearing/>
- Durrell, G. (1977). *My Family and Other Animals*. Penguin Books.
- Eby, M. (2010, June 21) Laurie Anderson is bored with the avant-garde, *Salon*. Retrieved from: https://www.salon.com/2010/06/21/laurie_anderson_interview/
- Faith, C. M. (2007). *The Way of the Turtle: The Secret Methods that Turned Ordinary People into Legendary Traders*. McGraw-Hill.
- Ferguson, S. (2006). Learning musical instrument skills through interactive sonification, *Proceedings of the 2006 International Conference on New Interfaces for Musical Expression (NIME06)*. Retrieved from: https://www.researchgate.net/profile/Sam_Ferguson/publication/221164900_Learning_Musical_Instrument_Skills_Through_Interactive_Sonification/links/5536580b0bcf20ea35f125463/Learning-Musical-Instrument-Skills-Through-Interactive-Sonification.pdf

Feynman, R. P. (1965). *The Character of Physical Law*. MIT Press.

Fisher, T. R. (2000). *In the Scheme of Things, Alternative Thinking on the Practice of Architecture*, U. of Minnesota Press.

Goleman, D. (2013). *Focus, the Hidden Driver of Intelligence*, HarperCollins.

Havel, V. (1988). Stories and totalitarianism, *Index On Censorship* 3(88). Retrieved from:
<https://journals.sagepub.com/doi/pdf/10.1080/03064228808534381>

Heick, T. (2020, February 15). As the world changes, How should school change? *Teachthought*. Retrieved from:
<https://www.teachthought.com/education/how-overly-academic-learning-is-killing-education/>

James, W. (1950). *The Principles of Psychology*. Dover.

James, W. (2019). *The Meaning of Truth*. Anodos Books. Retrieved from:
<https://www.gutenberg.org/files/5117/5117-h/5117-h.htm>

Kaczynski, T. (2018). *The Unabomber's Manifesto: Industrial Society and Its Future*, Independently published.

Kaufman, B. S., & Gregoire, C. (2016). *Wired to Create: Unraveling the Mysteries of the Creative Mind*. TarcherPerigee.

Lindbergh, C. (2003). *The Spirit of St. Louis*. Scribner.

Nørretranders, T. (1999). *The User Illusion, Cutting Consciousness Down To Size*, Penguin Books.

References

Pink, D. H. (2012). *To Sell Is Human, the Surprising Truth About Moving Others*. Riverhead Press.

Pinker, S. (2018). *Enlightenment Now, the Case for Reason, Science, Humanism, and Progress*. Random House.

Rönnqvist, L., McDonald, R., Sommer, M. (2018, December 7). Influences of synchronized metronome training on soccer players' timing ability, Performance accuracy, and lower-limb kinematics, *Frontiers in Psychology*, 9, article 2469. doi: 10.3389/fpsyg.2018.02469

Santilli, R. M. (2017). Lawsuit Against Frank Israel and Pepjim van Erp. *EPR Debates*. Retrieved from: <http://eprdebates.org/Lawsuit-against-Frank-Israel-and-Pepijin-van-Erp.php>

Smith, R. (2006). Peer review: a flawed process at the heart of science and journals, *Journal of the Royal Society of Medicine*, 99(4): 178-182. doi: 10.1258/jrsm.99.4.172. Retrieved from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1420798/>

Soni, J., Goodman, R. (2017, August 1). 10,000 hours with Claude Shannon: How a genius thinks, works and lives, *Observer*. Retrieved from: <https://observer.com/2017/08/10000-hours-with-claude-shannon-how-genius-thinks-works-lives-a-mind-at-play-bell-labs/>

Stoller, L. (1987). The Indian's apprentice: Learning to build the dugout canoe, *Wooden Boat Magazine*, 4: 27-33.

Stoller, L. (2014). ADHD as emergent institutional exploitation, *The Journal of Mind and Behavior*, 35 (1 & 2), pp. 21-50.

Stoller, L. (2019a). *The Path to Sleep, Exercises for an Ancient Skill*. Mind Strength Balance.

Stoller, L. (2019b). *Becoming Lucid, Self-Awareness in Sleeping and Waking Life*. Mind Strength Balance.

Taylor, E. (2009). *Mind Programming, From Persuasion and Brainwashing to Self-Help and Practical Metaphysics*. Hay House.

Voss, C. (2016). *Never Split the Difference: Negotiating As If Your Life Depended On It*. HarperCollins.

Wright, J. L. (1992). *My Father, Frank Lloyd Wright*. Dover Publications.

Yamamura, M. (2015) *Yayoi Kusama: Inventing the Singularity*. MIT Press.

Yong, E. (2017, October 3). The absurdity of the Nobel Prizes in science, *The Atlantic*. Retrieved from:
<https://www.theatlantic.com/science/archive/2017/10/the-absurdity-of-the-nobel-prizes-in-science/541863/>

Zabelina, D. (2015, January 23). Creativity and sensory gating, Creative people's brains are not good at filtering out sensory information, *Psychology Today*. Retrieved from:
<https://www.psychologytoday.com/ca/blog/finding-butterfly/201501/creativity-and-sensory-gating>



Quotation Index

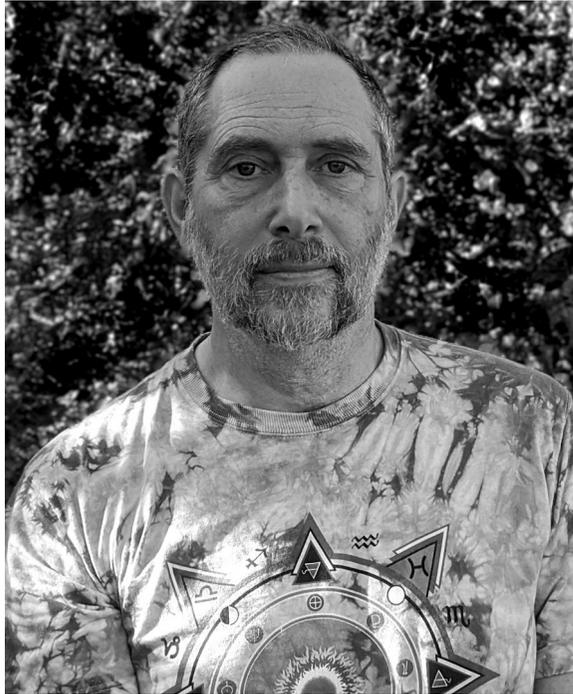
Albert Einstein.....	16, 45, 152, 171, 289
Alexander Calder.....	224
Alice Placert.....	55, 99
Andrew Reese Crowe.....	58
Anne Sullivan.....	14
Annie Dillard.....	44
anonymous.....	182
Antoine de Saint-Exupéry.....	71, 84
Aristotle.....	58, 210
Benjamin Disraeli.....	212
Bertrand Russell.....	144
Bruce Lee.....	217
C. W. Huntington, Jr.....	103
Caitlin McKenna.....	110
Carolyn Gregoire.....	86
Charles A. Lindbergh.....	18
Charles H. Townes.....	86, 158, 174, 209
Christa Dahl.....	290
Christopher Alexander.....	221
Clair Patterson.....	224
Clarence W. See.....	22
Claude Shannon.....	79, 289
Confucius.....	55
Curtis M. Faith.....	37
Daniel Goleman.....	78, 150
Daniel Pink.....	149
Dave Williamson.....	54, 98, 169, 208
David Bowie.....	33, 59
Donald Dubois.....	53, 224
Dwight D. Eisenhower.....	182
Ed Yong.....	59
Eldon Taylor.....	198
Ella Gerazuk.....	11
Emma Bragdon.....	298

Epictetus.....	294
Esther Dyson.....	27
Eugene P. Wigner.....	83
Frank Lloyd Wright.....	43, 216, 289
Fred Beckey.....	39
Friedrich Nietzsche.....	192
George Plotkin.....	20, 226, 273
Gerald Durrell.....	106
Gudrun Sperrer.....	66, 218
Hamilton Shu.....	220
Jaz Lin.....	62, 97, 99, 115
Jean-Paul Sartre.....	182
Jerome Lettvin.....	24, 41, 61, 75, 85, 147, 184
Jerry Sternin.....	205
Jessica Henry.....	241, 287
Jesus.....	223
Jimi Hendrix.....	60
Jimmy Soni.....	89
John Adams.....	210
John Taylor Gatto.....	17, 194
Julia Ward Howe.....	130
Kiran Fox Stoller.....	43
Kurt Vonnegut.....	125
Lao Tzu.....	55
Laurie Anderson.....	111
Lincoln Stoller.....	68, 75, 93, 100, 243
Lotus Bringing.....	73, 266
Lou Giani.....	238
Lynn Hill.....	108, 123
Maggie Lettvin.....	75, 289
Marcus Garvey.....	89
Mark Twain.....	75
Martin Luther King, Jr.....	41, 296
Mary Woronov.....	60
Matt Forbeck.....	51, 109
Maurice Merleau-Ponty.....	12
Michelle Murrain.....	28, 79, 247, 284

Quotation Index

Midori Yamamura.....	179
Mike Short.....	36, 203
Nancy White.....	85, 163
Neil deGrasse Tyson.....	181
Neil Postman.....	167
Niels Bohr.....	206, 217
Nils Nilsson.....	11
Oliver Pierce.....	95
Pablo Picasso.....	8, 50, 126
Paul.....	223
Paul K. Feyerabend.....	12
Phantom Street Artist.....	15
Phyllis Schlafly.....	48, 110, 159, 170, 292
Ray Bradbury.....	140, 212
Richard P. Feynman.....	32, 60, 141, 239
Rob Goodman.....	89
Sa'dī Shirazi.....	173
Scott Barry Kaufman.....	86
Simon Daniel James.....	112
Sonya Peters.....	243
Steve Jobs.....	104
Terry Heick.....	25
The Buddha.....	204
The Phantom Street Artist.....	80
Thomas A. Edison.....	156
Thomas R. Fisher.....	197
Tom Hurwitz.....	107, 282
Tom Kellogg.....	87, 230
Václav Havel.....	70
Vannevar Bush.....	49
Vladimir Nabokov.....	124
William Ashburton.....	68, 72, 265, 286
William James.....	113, 297
William Upsi Wimsatt.....	13
Winston Churchill.....	55

About the Author



Lincoln Stoller has published work as a physicist, astronomer, statistician, biologist, neurophysiologist, neurofeedback therapist, psychologist, hypnotherapist, computer scientist, software architect, anthropologist, mountaineer, and educator. He has built two houses and has licenses to pilot soarplanes, fly paragliders, and scuba dive.

He holds a PhD in quantum physics from the University of Texas, hypnotherapy certifications from ICBCH and IMDHA, and the patent for the design of a business accounting system which he programmed and supported for 15 years. He is an assessing editor at the *Journal of Mind and Behavior*.

About the Author

Lincoln has spent 40 years involved with various schools of spirituality and mediation, 20 years with the therapeutic and religious use of psychedelics, 10 years offering EEG brainwave training, and the last 5 years as a hypnotherapist in private practice specializing in medical support, sleep enhancement, spiritual guidance, and business psychology. All of which is to say, he helps people learn things. His previous four books are: *The Learning Project*, *Rites of Passage*; *The Path To Sleep*; *Becoming Lucid*, and *COVID-19: Illness and Illumination*.

His 22-year-old son Kiran lives with Lincoln's ex-wife in New York, and his 10-year-old son Pythagoras lives with Lincoln in Victoria, British Columbia, Canada, to which he moved for educational and political reasons, and to be closer to mountains, forests, and the sea.

