



Fixing My Gaze: A Scientist's Journey Into Seeing in Three Dimensions

By Susan R. Barry

Download now

Read Online 

Fixing My Gaze: A Scientist's Journey Into Seeing in Three Dimensions By Susan R. Barry

When neuroscientist Susan Barry was fifty years old, she took an unforgettable trip to Manhattan. As she emerged from the dim light of the subway into the sunshine, she saw a view of the city that she had witnessed many times in the past but now saw in an astonishingly new way. Skyscrapers on street corners appeared to loom out toward her like the bows of giant ships. Tree branches projected upward and outward, enclosing and commanding palpable volumes of space. Leaves created intricate mosaics in 3D. With each glance, she experienced the deliriously novel sense of immersion in a three dimensional world.

Barry had been cross-eyed and stereoblind since early infancy. After half a century of perceiving her surroundings as flat and compressed, on that day she was seeing Manhattan in stereo depth for first time in her life. As a neuroscientist, she understood just how extraordinary this transformation was, not only for herself but for the scientific understanding of the human brain. Scientists have long believed that the brain is malleable only during a “critical period” in early childhood. According to this theory, Barry’s brain had organized itself when she was a baby to avoid double vision – and there was no way to rewire it as an adult. But Barry found an optometrist who prescribed a little-known program of vision therapy; after intensive training, Barry was ultimately able to accomplish what other scientists and even she herself had once considered impossible.

A revelatory account of the brain’s capacity for change, *Fixing My Gaze* describes Barry’s remarkable journey and celebrates the joyous pleasure of our senses.

 [Download Fixing My Gaze: A Scientist's Journey Into Se ...pdf](#)

 [Read Online Fixing My Gaze: A Scientist's Journey Into ...pdf](#)

Fixing My Gaze: A Scientist's Journey Into Seeing in Three Dimensions

By Susan R. Barry

Fixing My Gaze: A Scientist's Journey Into Seeing in Three Dimensions By Susan R. Barry

When neuroscientist Susan Barry was fifty years old, she took an unforgettable trip to Manhattan. As she emerged from the dim light of the subway into the sunshine, she saw a view of the city that she had witnessed many times in the past but now saw in an astonishingly new way. Skyscrapers on street corners appeared to loom out toward her like the bows of giant ships. Tree branches projected upward and outward, enclosing and commanding palpable volumes of space. Leaves created intricate mosaics in 3D. With each glance, she experienced the deliriously novel sense of immersion in a three dimensional world.

Barry had been cross-eyed and stereoblind since early infancy. After half a century of perceiving her surroundings as flat and compressed, on that day she was seeing Manhattan in stereo depth for first time in her life. As a neuroscientist, she understood just how extraordinary this transformation was, not only for herself but for the scientific understanding of the human brain. Scientists have long believed that the brain is malleable only during a “critical period” in early childhood. According to this theory, Barry’s brain had organized itself when she was a baby to avoid double vision – and there was no way to rewire it as an adult. But Barry found an optometrist who prescribed a little-known program of vision therapy; after intensive training, Barry was ultimately able to accomplish what other scientists and even she herself had once considered impossible.

A revelatory account of the brain’s capacity for change, *Fixing My Gaze* describes Barry’s remarkable journey and celebrates the joyous pleasure of our senses.

Fixing My Gaze: A Scientist's Journey Into Seeing in Three Dimensions By Susan R. Barry
Bibliography

- Sales Rank: #129594 in Books
- Brand: imusti
- Published on: 2010-08-03
- Released on: 2010-08-03
- Original language: English
- Number of items: 1
- Dimensions: 8.25" h x .75" w x 5.50" l, .64 pounds
- Binding: Paperback
- 272 pages

 [Download Fixing My Gaze: A Scientist's Journey Into Se ...pdf](#)

 [Read Online Fixing My Gaze: A Scientist's Journey Into ...pdf](#)

Download and Read Free Online *Fixing My Gaze: A Scientist's Journey Into Seeing in Three Dimensions* By Susan R. Barry

Editorial Review

From Publishers Weekly

Barry, a neuroscientist at Mount Holyoke College, was born with her eyes crossed and literally couldn't see in all three dimensions. Barry underwent several surgeries as a child, but it wasn't until she was in college that she realized she wasn't seeing in 3-D. The medical profession has believed that the visual center of the brain can't rewire itself after a critical cutoff point in a child's development, but in her 40s, with the help of optometric vision therapy, Barry showed that previously neglected neurons could be nudged back into action. The author tells a poignant story of her gradual discovery of the shapes in flowers in a vase, snowflakes falling, even the folds in coats hanging on a peg. After Barry's story was written up in the *New Yorker* by Oliver Sacks, she heard from many others who had successfully learned to correct their vision as adults, challenging accepted wisdom about the plasticity of the brain. Recommended for all readers who cheer stories with a triumph over seemingly insuperable odds. Photos, illus. (June)

Copyright © Reed Business Information, a division of Reed Elsevier Inc. All rights reserved.

Review

From the foreword by Oliver Sacks

Fixing My Gaze is a beautiful description and appreciation of two very distinct ways of seeing... But it is also an exploration of much more. Sue is at pains not only to present her story, in clear and lucid, often poetic, language, but also, as a scientist, to provide understanding and explanation. She is in a unique position to do this, drawing on both her personal experience and her background as a neurobiologist....

Though Sue originally thought her own case unique, she has since found a number of other people with strabismus and related problems who have unexpectedly achieved stereo vision through vision therapy. This is no easy accomplishment. It may require not only optical corrections (proper lenses or prisms, for example), but very intensive training and learning—in effect, learning how to align the eyes and to fuse their images, and unlearning the unconscious habit of suppressing vision which has been occurring perhaps for decades. In this way, vision therapy is directed at the whole person: it requires high motivation and self-awareness, and enormous perseverance, practice and determination, as does psychotherapy, for instance, or learning to play the piano. But it is also highly rewarding, as Sue brings out. And this ability to acquire new perceptual abilities later in life has great implications for anyone interested in neuroscience or rehabilitation, and, of course, for the millions of people who, like Sue, have been strabismic since infancy.

Sue's case, and many others, suggest that if there are even small islands of function in the visual cortex, there may be a fair chance of reactivating and expanding them in later life, even after a lapse of decades, if vision can be made optically possible. Cases like these may offer new hope for those once considered incorrigibly stereo-blind. *Fixing My Gaze* will offer inspiration for anyone in this situation, but it is equally a very remarkable exploration of the brain's ability to change and adapt, and an ode to the fascination and wonder of the visual world, even those parts of it which many of us take for granted.”

Temple Grandin, author of *Thinking in Pictures*

“Essential reading for people interested in the brain.”

Eric Kandel, Winner of the Nobel Prize in Physiology/Medicine; author of *In Search of Memory*

“Fixing My Gaze is a magical book, at once poetic and scientific, that holds out great hope for all of us. Here Susan Barry recounts her discovery that through training she could acquire, in adulthood, the three dimensional vision she lacked in all her early years. Barry, an excellent brain scientist, illustrates through her personal experiences and the fascinating science of vision that the brain is a marvelously plastic organ that can continue to change its wiring and thereby its function throughout our adult life.”

David H. Hubel, Winner of the Nobel Prize in Physiology/Medicine; John Franklin Enders Professor of Neurobiology, Emeritus, Harvard Medical School

“It had been widely thought that an adult, cross-eyed since infancy, could never acquire stereovision, but to everyone’s surprise Barry succeeded. In *Fixing My Gaze*, she describes how wonderful it was to have, step-by-step, this new 3-D world revealed to her. And as a neurobiologist she is able to discuss the science as an expert, in simple language.”

Brock and Fernette Eide, authors of *The Mislabeled Child*

“Beautifully written, deeply informative, and profoundly inspiring...*Fixing My Gaze* will appeal to anyone interested in the beauty of the nervous system, and should be required reading for every person involved with the education, behavior, and development of children.”

Michael Chorost, author of *Rebuilt: How Becoming Part Computer Made Me More Human*

“Fascinating and moving....Barry shows us that with healthy eyes and the simplest of tools, we can see the world in an entirely new way. *Fixing My Gaze* made me wonder: What new things could any of us see, if only someone told us it was possible?”

Dr. Leonard J. Press, Optometric Director, The Vision & Learning Center

“Barry’s story is seemingly about stereovision, but the depth she probes goes well beyond three dimensions. No one reading her fascinating account will ever look at vision the same way again.”

Richard L. Gregory, editor of *The Oxford Companion to the Mind*

“It is rare to gain stereoscopic vision if born without it, but Susan Barry reveals that it happened to her. *Fixing My Gaze* is the engaging story of her unusual adventure.”

Nigel Daw, Professor Emeritus of Ophthalmology and Neuroscience, Yale University; author of *Visual Development*

“Magnificent...It is not yet clear what percentage of patients may be like Barry, but *Fixing My Gaze* will encourage eye care practitioners to go ahead and find out, with definite benefits to their patients. Moreover, the book is fascinating reading.”

Publishers Weekly

“Barry tells a poignant story of her gradual discovery of the shapes in flowers in a vase, snowflakes falling, even the folds in coats hanging on a peg.... Recommended for all readers who cheer stories with a triumph over seemingly insuperable odds.”

Discover magazine

“Barry’s buoyant journey into stereovision is an eye-popping ride.”

Booklist

“An exemplary and informative testimony to the probably lifelong plasticity of the brain.”

SeedMagazine.com

“Barry’s transformation captures the sometimes-indescribable nature of perception.... Her tour of the science

behind her experience underlines the amazing precision of our senses – and how easily we can take them for granted.”

BookPage

“A testament both to human physiology and spirit that permits someone to live with – and then change – a uniquely altered view of the world.... This book opens up the possibility that people can change their physical limitations, and that it is never too late to try.”

Optometry & Vision Development

“This book is a marvelous ode to what can be accomplished when doctor and patient encourage one another to aim higher and further.”

New England Journal of Medicine

“One axis of [Barry’s] book is a graceful and grateful appreciation of a newly acquired ‘ability to see the volume of space between objects and to see each object as occupying its own space’ – revelations that allowed her to live ‘among’ and ‘in’ the things of this world and gave her first movements of snow falling, trees branching, and a faucet arcing out of the sink.... The book’s main contribution, however, is exposing the wrong-headed dogma that acuity and binocular vision can be restored only during a critical developmental period.”

>Times Higher Education Supplement

“The book is a joy to read.”

Optometry and Vision Science

“*Fixing My Gaze* provides a fascinating, informative, and beautifully written account of [Barry’s] acquisition of stereopsis after vision therapy at the age of 48 years.... Barry’s insights about her own vision provide wonderful insights into what it means to not have stereopsis, and the profound, life-changing effect of acquiring it.”

Stereo World

“In *Fixing My Gaze*, neuroscientist Susan Barry explains for the rest of us in fascinating detail just what a truly and completely ‘flat’ world is like to live in for 48 years.”

Nature Neuroscience

“[E]nticing.... [Barry] combine[s] a vivid and poetic account of her recovery with a detailed description of her treatment and the underlying science.”

The Journal of Clinical Investigations

“[A] fascinating account.... In addition to recounting her personal triumph, Barry clearly explains the visual and clinical science needed to understand the significance of this achievement.... [T]his engaging book will leave both readers knowledgeable in the field, as well as those just looking to understand something about the visual process, pondering what else there is left to see.”

Curled Up With A Good Book

“Barry’s book is great for anyone interested in learning more about the fascinating and complex biology of seeing, as well as those seeking hope and inspiration in overcoming a brain-centered disability thought to be incurable.”

Perception

“[C]ombines in an elegant way biography and science.... This is an excellent book.”

Users Review

From reader reviews:

Mary Davis:

The book Fixing My Gaze: A Scientist's Journey Into Seeing in Three Dimensions gives you the sense of being enjoy for your spare time. You can utilize to make your capable more increase. Book can to be your best friend when you getting stress or having big problem with the subject. If you can make studying a book Fixing My Gaze: A Scientist's Journey Into Seeing in Three Dimensions for being your habit, you can get considerably more advantages, like add your capable, increase your knowledge about several or all subjects. It is possible to know everything if you like open up and read a publication Fixing My Gaze: A Scientist's Journey Into Seeing in Three Dimensions. Kinds of book are a lot of. It means that, science e-book or encyclopedia or others. So , how do you think about this reserve?

Brad Bennett:

The publication with title Fixing My Gaze: A Scientist's Journey Into Seeing in Three Dimensions has lot of information that you can learn it. You can get a lot of benefit after read this book. That book exist new understanding the information that exist in this reserve represented the condition of the world now. That is important to yo7u to find out how the improvement of the world. This particular book will bring you within new era of the the positive effect. You can read the e-book with your smart phone, so you can read that anywhere you want.

John Wannamaker:

Many people spending their time period by playing outside using friends, fun activity using family or just watching TV 24 hours a day. You can have new activity to invest your whole day by examining a book. Ugh, ya think reading a book can really hard because you have to accept the book everywhere? It okay you can have the e-book, having everywhere you want in your Smartphone. Like Fixing My Gaze: A Scientist's Journey Into Seeing in Three Dimensions which is finding the e-book version. So , why not try out this book? Let's observe.

Lawrence Gibbs:

As we know that book is vital thing to add our understanding for everything. By a reserve we can know everything we would like. A book is a pair of written, printed, illustrated as well as blank sheet. Every year was exactly added. This e-book Fixing My Gaze: A Scientist's Journey Into Seeing in Three Dimensions was filled about science. Spend your free time to add your knowledge about your science competence. Some people has various feel when they reading the book. If you know how big benefit of a book, you can feel enjoy to read a book. In the modern era like today, many ways to get book that you just wanted.

**Download and Read Online Fixing My Gaze: A Scientist's Journey
Into Seeing in Three Dimensions By Susan R. Barry
#NBGR50IMU3X**

Read Fixing My Gaze: A Scientist's Journey Into Seeing in Three Dimensions By Susan R. Barry for online ebook

Fixing My Gaze: A Scientist's Journey Into Seeing in Three Dimensions By Susan R. Barry Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Fixing My Gaze: A Scientist's Journey Into Seeing in Three Dimensions By Susan R. Barry books to read online.

Online Fixing My Gaze: A Scientist's Journey Into Seeing in Three Dimensions By Susan R. Barry ebook PDF download

Fixing My Gaze: A Scientist's Journey Into Seeing in Three Dimensions By Susan R. Barry Doc

Fixing My Gaze: A Scientist's Journey Into Seeing in Three Dimensions By Susan R. Barry Mobipocket

Fixing My Gaze: A Scientist's Journey Into Seeing in Three Dimensions By Susan R. Barry EPub

NBGR50IMU3X: Fixing My Gaze: A Scientist's Journey Into Seeing in Three Dimensions By Susan R. Barry