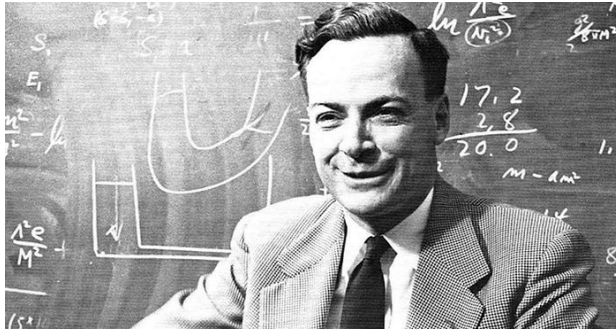


This is Feynman's Thinking Habit. It Made Him a Genius

Think 10x clearer with this simple mental trick.

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Feynman. Image courtesy Cambridge Judge Business School

I love learning from history's greatest minds. Today, I want to share Richard Feynman's thinking habits. He always insisted he was just an ordinary guy who focused incredibly hard on learning how to think. But Feynman had an operating system for life. From decades of refusing to let understanding remain complicated. From going back to first principles again and again. And trusting simplicity as a sign of knowledge. He applied it everywhere. Physics, biology, drawing and more. He approached every new thing from zero. With curiosity, building from the basic principle up. **"Study hard what interests you the most in the most undisciplined, irreverent and original manner possible,"** he said.

Feynman was one of the most original minds of the 20th century. A Nobel Prize winner. A physicist who rewrote how scientists visualize quantum interactions. He demanded to understand things from the inside out. By building from scratch. Tearing ideas apart and reassembling them in his own way. He once said: ***"What I cannot create, I do not understand."*** He was willing to start from scratch when everyone else kept going back to the established way of learning as the only way. That willingness to look stupid in front of yourself, to admit you don't know, to start again from zero, became a thinking habit.

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I think it's much more interesting to live not knowing than to have answers which might be wrong. I have approximate answers and possible beliefs, and different degrees of uncertainty about different things, but I am not absolutely sure of anything — and there are many things I don't know anything about, such as whether it means anything to ask why we're here. I don't have to know an answer. I don't feel frightened not knowing things, by being lost in a mysterious universe without any purpose, which is the way it really is as far as I can tell.
(Richard Feynman)

The Feynman Technique

For every idea, theory, problem, or anything he didn't understand, Feynman tried to explain it to himself first. In the simplest way possible. As if he were talking to someone who had never heard of it before. He would sit with a blank piece of paper and write out what he thought he understood. In his own words, from scratch. The minute he got stuck, and he always got stuck somewhere, he went back to the source. To understand *why* it said what it said. Then he tried again. He wrote it out again. Simpler this time. He kept going until there were no knots in his understanding. It became the **Feynman technique**. "If you can't explain something in simple terms, you don't understand it," he says.

Feynman said if a child cannot follow your logic, you haven't simplified it enough. "If you can't explain something to a first year student, then you haven't really understood," he once wrote.

Einstein used a similar approach. He also said, "If you can't explain it to a six year old, you don't understand it yourself."

You can try this with something you think you know. Pick any concept from your work, your reading, or life. Compound interest. The unconscious mind. Stoicism. Anything. Now explain it by writing it down. Pretend you're explaining it to a twelve-year-old who's never heard of it. Use practical examples. And everyday comparisons. See where you hesitate or stop. Or where your understanding runs out. That's where the real learning begins. Most people never find their edge because they never look for it. They stay in familiar places. The Feynman thinking technique forces you to face your own ignorance. It is easy to fool yourself into thinking you understand a project, problem, or idea. Getting back to the basics is how to get rid of false assumptions.

"The first principle is that you must not fool yourself — and you are the easiest person to fool." He made it a method. If you take seriously the idea that you're the easiest person to fool, you stop taking your own understanding for granted. You build in checkpoints. You test yourself all the time.

You can't find the truth if you are terrified of being wrong. Feynman's genius was his radical, almost aggressive honesty with himself. In our school systems, people are punished for saying "I don't know." We learn to guess, to fake it, and to pretend we have the answers to pass the exam. Feynman did the exact opposite. He celebrated his ignorance. If a theory didn't match reality, he threw it out immediately. He didn't care who invented the theory, how famous they were, or how beautiful the math looked.

“It doesn’t matter how beautiful your theory is, it doesn’t matter how smart you are. If it doesn’t agree with experiment, it’s wrong.”

12 Favorite Problems

When Feynman was a young scientist, he developed a simple mental trick. He kept a running list of **12 favorite problems** in his mind. These were open-ended questions about how the world works. Every time he read a new research paper, heard a lecture, or saw something strange, he would test it against his twelve problems.

He described the habit like this:

“You have to keep a dozen your favorite problems constantly present in your mind, although by and large they lay in a dormant state. Every time you hear or read a new trick or a new result, test it against each of your twelve problems to see whether it helps.”

Feynman’s twelve problems meant he was always scanning for the connections that others missed. To use this yourself, you can write down your own list. They could be professional or personal curiosities. Like, why does this problem persist after all these years? Why do certain habits stick while others fail? Keep them active. When you read a book or talk to a stranger, find patterns on your list. You will start noticing answers everywhere.

Feynman pursued the discomfort of discovery. He treated not knowing as an invitation to get back to first principles.

- What do I know for certain?
- What can I verify?
- What am I just assuming?

Feynman applied this to physics obsessively. He would rederive results from scratch rather than absorb them from prior work. The act of creation was the act of understanding. This is what he meant by “what I cannot create, I do not understand.” Starting from first knowledge and arriving at the result yourself shows you every step of the logic. You can’t fake your way through it. You either get there, or you don’t. Most people learn the destination. Feynman always learned the route.

Make Curiosity a Practice

He made curiosity a practice. And the habit always rewarded him. The pleasure of figuring things out reinforced the curiosity behavior. He kept doing it. The curiosity was a consequence of a practice he maintained.

“Fall in love with some activity, and do it! Nobody ever figures out what life is all about, and it doesn’t matter. Explore the world. **Nearly everything is really interesting if you go into it deeply enough.** Work as hard and as much as you want to on the things you like to do the best. Don’t think about what you want to be, but what you want to do. Keep up some kind of a minimum with other things so that society doesn’t stop you from doing anything at all.”

He meant this literally. Surface-level engagement with any topic is boring. The results and the categorizations. None of that is interesting. The why. The how. The hidden structure that explains the surface was everything to Feynman. When you train yourself to always push one level more, everything becomes interesting. The way a child learns to walk is a lesson in motor learning and feedback loops.

How Play Earned a Nobel Prize

After working on the atomic bomb during World War II, he felt burned out. He felt he had lost his passion for physics. So, he made a deal with himself. He would only play with physics for the sheer fun of it, with no specific goal. A few days later, he was in the Cornell University cafeteria. A student threw a dinner plate into the air. As the plate flew, Feynman noticed it wobbled, and the red university medallion on the plate spun faster than the wobble itself. He didn’t need to solve this. But he decided to calculate the motion of the spinning plate just for fun. That playful calculation led him to look at how electrons spin. That led to his work on quantum electrodynamics. And that exact work won him the Nobel Prize.

Genius comes from relaxed, playful curiosity. It’s also a choice to look at the world without illusions. We don’t need extraordinary minds to achieve extraordinary results. We just need to stop hiding behind complex things and start pursuing simple truths. Strip away the details you don’t understand. Write down your problems. Admit when you are wrong, and never lose your sense of play. Think like Feynman. Keep it simple. Let curiosity do the work.

Source:

<https://thomas-oppong.medium.com/this-is-feynmans-thinking-habit-it-made-him-a-genius>

Who was Richard Feynman?

Richard Feynman (1918–1988) was a famous American physicist. He won the Nobel Prize in Physics in 1965 for his work on quantum electrodynamics (how light and matter interact). He was also known for his playful personality, his skill as a teacher, and his work on the atomic bomb.

Major Achievements

- **Quantum Physics:** He drew simple diagrams (called Feynman diagrams) to show how tiny particles act.
- **Manhattan Project:** He helped build the first atomic bomb during World War II while working at Los Alamos.
- **Space Shuttle Investigation:** He figured out the cause of the 1986 *Challenger* space shuttle accident using a simple glass of ice water.

Life and Legacy

- **Teaching:** He taught physics at the California Institute of Technology (Caltech) and wrote famous books like *The Feynman Lectures on Physics*.
- **The Feynman Technique:** He believed that if you cannot explain a hard idea in simple words, you do not truly understand it yet.
- **Fun Personality:** He loved playing the bongo drums, picking locks, and playing practical jokes.