How to Hardwire Resilience into the Brain
by Rick Hanson, Forrest Hanson

One winter, I went camping with my friend Bob in the backcountry near Sequoia National Park. After spending the day slogging uphill through deep snow, we were exhausted but needed to make camp.

As the temperature rapidly dropped, Bob began shivering uncontrollably. He had poured out so much energy without refueling himself that he was sliding into hypothermia, the first stage of freezing to death. We hurried to set up the tent, get into our sleeping bags, light the stove, drink hot water, and eat hot food—and soon Bob’s teeth stopped chattering.

Luckily, we had just enough resilience to turn this misadventure around. Mental resources like calm, grit, and courage kept us going when we were hit with freezing temperatures. And these are the same types of resources we all can use to help us cope with and push through obstacles in our own lives.

But how do we cultivate them? The key is knowing how to turn passing experiences into lasting inner resources built into our brains. I teach this skill—called positive neuroplasticity—in my new book, Resilient: How to Grow an Unshakable Core of Calm, Strength, and Happiness (written with Forrest Hanson).

Though it’s not a quick fix, you can change your brain for the better by working it the same way you would work a muscle. As you become more resilient in the face of life’s challenges, you move toward greater well-being and away from stress, worry, frustration, and hurt.

12 resources for resilience

Every human being has three basic needs—safety, satisfaction, and connection—that are grounded in our ancient evolutionary history. While our circumstances have changed enormously over the last 200,000 years, our brains have remained largely the same. The neural machinery that enabled our ancestors to satisfy their need for safety by finding shelter, for satisfaction by getting food, and for connection by bonding with others is alive in our brains today.

A particular need is best met by inner strengths that are matched to it—and these mental resources are what make us resilient.

To meet our need for safety, we can draw on:

- Compassion: Being sensitive to the burdens and suffering of others and ourselves, along
with the desire to help with these if we can.

- **Grit**: Being doggedly tough and resourceful.
- **Calm**: Emotional balance and a sense of capability in the face of threats.
- **Courage**: Protecting and standing up for ourselves, including with others.

To meet our need for satisfaction, we can draw on:

- **Mindfulness**: Staying present in the moment as it is, rather than daydreaming, ruminating, or being distracted.
- **Gratitude**: Appreciating and feeling good about what already exists.
- **Motivation**: Pursuing opportunities in the face of challenges.
- **Aspiration**: Reaching for and achieving results that are important to us.

To meet our need for connection, we can draw on:

- **Learning**: Growing and developing, a process that allows us to cultivate all the other strengths.
- **Confidence**: Feeling a sense of being cared about, worthy, and self-assured.
- **Intimacy**: Being open to knowing and being known by others.
- **Generosity**: Giving to others through altruism, compassion, and forgiveness.

To start cultivating more resilience, pick a challenge in your life, and then consider the needs at stake in it, in terms of safety, satisfaction, and connection. You may be dealing with an external challenge, such as a relationship conflict, a stressful job, or a health problem. Or you could be facing an internal challenge, such as harsh self-criticism or feeling unwanted. Sometimes there’s a one-two punch. For example, tension with someone might be stirring up self-criticism inside you.

As you consider a major challenge and the need(s) at the heart of it, see if any of the twelve resources stand out. Ask yourself:

- What, if it were more present in my mind these days, would really help?
- What inner strengths could help me stay peaceful, content, and loving when I’m dealing with this challenge?
- If this challenge began in the past, what would have been really helpful to have experienced back then?
- Deep down, what experience do I still very much long for?

The answers to these questions point to which resources you might need to get through your challenge. Next, follow my HEAL framework (Have a beneficial experience, Enrich it, Absorb it, Link it) to cultivate this resource as a durable strength hardwired into your own brain.

1. **Have a beneficial experience**

   Nearly everyone has many enjoyable or useful experiences each day, most of them mild
and brief. For example, it feels good to put on a sweater if you’re chilled or feel friendly toward someone who is kind to you. But do you take notice of these experiences and highlight them in your awareness, or just pass by them and move on to the next thing?

The brain is continually remodeling itself as you learn from your experiences. When you repeatedly stimulate a “circuit” in the brain, you strengthen it. The brain operates so rapidly—with neurons routinely firing 5-50 times a second—that you can grow resilience and well-being many times a day, taking a minute or less each time.

To have beneficial experiences in the first place, it helps to be alert to the good facts around you—for example, fortunate circumstances, the beauty of nature, tasks you are completing, people who care about you, or your own talents and skills. You can even find the good in hard times, such as seeing the kindness of others as you go through a loss.

Besides simply noticing useful or pleasurable thoughts, feelings, or sensations that are already present in your awareness, you could create beneficial experiences, such as by getting some exercise (to help build the resource of grit) or deliberately recognizing your own good heart (for confidence). Or you could make something good happen in a relationship, such as by listening carefully to someone (for intimacy).

Over time, you can learn to directly evoke a positive experience, such as relaxing at will, calling up a sense of determination, or letting go of resentment. Because of experience-dependent neuroplasticity, repeatedly having and internalizing a particular experience in the past makes it easier and easier to evoke it in the present. It’s like being able to push a button on your inner jukebox and quickly get the song of a useful experience playing in your mind, since you’ve recorded it again and again.

To grow the inner resources that produce resilient well-being, we must turn experiences of these resources into physical changes in the nervous system. Otherwise, by definition there is no healing, no growth, no development. Having an experience is only the first stage in the process of learning (including the emotional, social, and somatic learning I’m focused on here). The necessary second stage is to install that experience as a lasting change of neural structure or function. This is the stage that is routinely overlooked in psychotherapy, coaching, human resources trainings, and informal personal efforts at healing and growth. Therefore, this stage is where we have the greatest opportunity for steepening the learning curves of ourselves and others.

We can increase the installation of our beneficial experiences in two kinds of ways. First, we can enrich them, making them prominent and sustained in awareness. Second, we can absorb them by heightening the sensitivity of the nervous system. Here’s how.

2. Enrich it

There are five ways to enrich an experience:

- **Lengthen it.** Stay with it for five, ten, or more seconds. The longer that neurons fire together, the more they tend to wire together. Protect the experience from distractions, focus on it, and come back to it if your mind wanders.
- **Intensify it.** Open to it and let it be big in your mind. Turn up the volume by breathing more fully or getting a little excited.
- **Expand it.** Notice other elements of the experience. For example, if you’re having a useful thought, look for related sensations or emotions.
Freshen it. The brain is a novelty detector, designed to learn from what’s new or unexpected. Look for what’s interesting or surprising about an experience. Imagine that you are having it for the very first time.

Value it. We learn from what is personally relevant. Be aware of why the experience is important to you, why it matters, and how it could help you.

Any one of these methods will increase the impact of an experience, and the more, the better. But you don’t have to use all of them every time. Often, you’ll simply stay with something for a breath or two while feeling it in your body, and then move on to the next experience.

3. Absorb it

You can increase the absorption of an experience in three ways:

- Intend to receive it. Consciously choose to take in the experience.
- Sense it sinking into you. You could imagine that the experience is like a warm, soothing balm or a jewel being placed in the treasure chest of your heart. Give over to it, allowing it to become a part of you.
- Reward yourself. Tune into whatever is pleasurable, reassuring, helpful, or hopeful about the experience. Doing this will tend to increase the activity of two neurotransmitter systems—dopamine and norepinephrine—that will flag the experience as a “keeper” for long-term storage.

This is not about holding on to experiences. The stream of consciousness is constantly changing, so trying to cling to anything in it is both doomed and painful. But you can gently encourage whatever is beneficial to arise and stick around and sink in—even as you are letting go of it. Happiness is like a beautiful wild animal watching from the edge of a forest. If you try to grab it, it will run away. But if you sit by your campfire and add some sticks to it, happiness will come to you, and stay.

4. Link it

In Linking, you are simply conscious of both “negative” and “positive” material at the same time. For example, off to the side of awareness could be old feelings of being left out and unwanted (perhaps from a rocky childhood) while in the foreground of awareness are feelings of being liked and included by people at work. The brain naturally associates things together, so if you keep the positive material more prominent and intense in awareness, it will tend to soothe, ease, and even gradually replace the negative material.

It helps to use positive material that is matched in some way to the negative material. To identify the specific psychological resources that will be especially effective with particular issues, I use the framework of the three basic human needs.

For example, challenges to safety are often indicated by a sense of anxiety, anger, powerlessness, or trauma—and a sense of calm or grit can really help with these. Challenges to our need for satisfaction are frequently experienced as frustration, disappointment, drivenness, addiction, blahness, or boredom. Feeling thankful, awestruck, or already contented are well-matched to these issues. Challenges to connection can be experienced as loneliness, resentment, or inadequacy—and feeling either caring or cared
about is a wonderful relief, since love is love whether it is flowing in or out.

To link, you can start with something positive, such as the sense of a key resource. While having that experience, you can bring to mind some negative material for which it would be good medicine. Or, you can start with something that is uncomfortable, stressful, or harmful, such as a lot of anxiety before giving a presentation. After letting your feelings be as long as you like and then letting go of them, you find positive material to replace what you released, such as a sense of calm from knowing that people are actually interested in hearing what you have to say.

If you get pulled into the negative, drop it and focus only on the positive. And remember that this step is optional: If the challenge you’re facing is too powerful, you can grow mental resources for addressing it through the first three HEAL steps alone.

A core of happiness

Going on a dangerous hike, we know that we need to bring food and other supplies. The same is true when traveling the road of life. We need psychological supplies, such as courage and generosity, in our neural “backpack.”

To fill up your backpack, be mindful of which particular need—safety, satisfaction, or connection—is at stake in the challenges of your life. Deliberately call upon your inner strengths related to meeting that need. Then, as you experience mental resources, you can reinforce them in your nervous system.

As you grow these strengths and become more resilient, you will feel less anxiety and irritation, less disappointment and frustration, and less loneliness, hurt, and resentment. And when the waves of life come at you, you’ll meet them with more peace, contentment, and love in the core of your being.