

Making a T'shuvah Plan

On Yom Kippur we speak in the traditional language of sin, repentance and atonement. It often feels very abstract, and when I keep making the same mistakes over and over again, I wonder how useful it is.

Moses Maimonides, back in the 12th century, also had some questions about our method of Tshuvah, and he set forth a 4-part process to make it real: Stop; Regret; Verbalize; and Make a Plan. (How could it be different next time you're in that very same situation?)

Let's just say for example you get irritable with your partner.

First, you become aware of your negativity and you stop, before that negativity escalates into a full-blown argument.

Second, you feel regret, remembering your love. You see the harm that you're causing with your criticism, complaint or irritability.

Third, you ask forgiveness and begin repairing the relationship.

The fourth step is the most interesting to me, and that's what I'd like to explore with you. How can I expect to respond differently next time I'm in the exact situation that caused this reaction in me?

My experience tells me that when I am stressed, and when I am triggered, I make mistakes; I hurt myself, and others.

When I am stressed, when I am triggered or startled, the blood actually leaves my forebrain and my reptile brain takes over. My sympathetic nervous system sends me into fight, flight or freeze mode, and I lose access to my capacity for reasoned and empathic response.

Dan Siegel enumerates 9 different essential functions of the middle prefrontal cortex that go off-line when I am startled, triggered or stressed:

1. Body regulation
2. Attuned communication
3. Emotional balance
4. Fear modulation
5. Response flexibility
6. Insight
7. Empathy
8. Morality
9. Intuition

We also know that the brain that we have inherited from our stone-age ancestors has a negative bias. We are wired to look for what's wrong, to notice the threat and live on the defensive. That defensive mode, ready for trouble, hypervigilant, is not conducive to nuanced thinking or considered response.

Our stone age brain gets stuck on high alert, and reinforces habitual patterns of reactivity. Yes, we have sinned and we will continue to do so, unless we do the work of re-wiring the brain.

No Matter how many "Al Chayts" I say this Yom Kippur... when I am hijacked by my sympathetic nervous system, I can't access my generosity, forgiveness or wide perspective.

And yes, it is possible to notice our negative patterns of reactivity and then re-wire the brain so that we have access to those 9 higher functions, no matter what Life throws at us. On this Yom Kippur, we thank God for the miracle of neuro-plasticity. We can make a make a plan for Tshuvah that is supported by our practice.

And this is how I understand the purpose of our spiritual practice. We enter into positive expansive experiences of blessing, praise, open-hearted generosity, wide perspective, silence, inquiry and beauty. And we bring the extra dimensions of awareness and intention to those experiences.

The neuroscientist, Rick Hanson says that, if positive experiences (1) are intense enough, (2) are novel enough, (3) occur often enough, or (4) if we direct our focused attention to them long enough, they will strengthen the brain's "happiness" neural pathways and therefore make it easier for us to feel positive emotions.

How? Both the intensity and the novelty of an experience increase levels of norepinephrine and dopamine, which increase the formation of new synapses in the hippocampus and thus the creation of new neural structures. Frequent positive experiences then cause the neurons that are firing together to wire together, strengthening these positive neural pathways. And when we bring focused attention to positive experiences, we will deepen those pathways even more. "Much mental and therefore neural activity flows through the brain like ripples on a river, with no lasting effects on its channel," writes Hanson. "But intense, prolonged, or repeated

mental/ neural activity—especially if it is conscious—will leave an enduring imprint in neural structure, like a surging current reshaping a riverbed.

There is an expression among neuroscientists that “Neurons that fire together, wire together.” This means the more you run a neuro-circuit in your brain, the stronger that circuit becomes. This is where practice comes in.

Both Neuro science and spiritual practice have been focusing on how we learn new things, and how we can cultivate new ways of responding to the world. But as it turns out, the ability to learn is about more than building and strengthening neural connections. Even more important is our ability to break down the old ones. It's called "synaptic pruning." Here's how it works.

Through practice, we grow synaptic connections between neurons. These are the connections that neurotransmitters like dopamine, serotonin, and others travel across. Some synaptic connections get pruned by microglial cells when we sleep. The connections that are less used get marked by a certain protein, and when the microglial cell detects that mark, it bonds to the protein and prunes the synapse. This is how the brain makes new space for us to learn more and release what is not essential.

By consistently bringing our attention to what's right and good, to what's amazing and wondrous, we strengthen those neural pathways, and then can receive the blessings that God is giving through this world. That's what we're doing when we enter into Praise, when we stop and stand in wonder at the miracles of our lives.

And in fact, you actually have some control over what your brain decides to delete while you sleep. It's the synaptic connections you don't use that get marked for pruning. The ones you do use are the ones that get Strengthened. Our meditation and prayer practice help us to be mindful of what occupies our brain- what we will grow and what will be released.

So, if we are to take Maimonides's advice and make a plan for how we will respond to stressful situations in the future, that plan must include the re-wiring of our brains through concerted and concentrated practice.

We can notice that our practice is working when we find ourselves in a difficult situation and then say, "My past-self would have been really upset by this... but now I can deal with it without being so triggered."

Through practice, we are able to transform passing mental states into lasting neural traits. Today, we commit to taking our prayerful moments of joy, moments of connection, moments of courage, hope and inspiration as forces that open our hearts and re-wire our brains. Our prayer is not just talk. We can change who we are, how we respond to adversity, how we open to blessing. Only by transforming ourselves can we transform our world. Psalm 97 says:

אֹר זָרַע לְצַדִּיק וּלְיִשְׁרָיִי לֵב שִׂמְחָה

Or zarua laTzadik, u'l'yishray lev simcha

Light is sown for the righteous, joy for the upright in heart.

On Yom Kippur we prepare the soil for that light, and we lift up our hearts to receive that joy. Preparing the soil means cultivating an innerness that is receptive, spacious, hopeful and rich with possibility. To be upright in heart we must weed out old patterns of cynicism or fear. And then we can grow a garden of justice and beauty.