As executive director of a visual arts center I was invited as keynote speaker for a women's group year end event. This is that speech written 12 years ago. There has no doubt been vast neurological research since that time. I plan to update this in the near future. Of course, your near future is likely different than mine.

ON MAKING AND THE MIND

MAKE is a powerful little four-letter word that gets little attention. Used in its second definition, we hardly notice it at all. We make dinner, make reservations, make noise, make over, make nice, make way, make haste, make the bed, make it to work on time, make a million, make a speech, make a discovery, make history, make the team, make an impression, make up our minds, make a mountain out of a molehill, make him happy, make him sad, make him mad, make him a drink, make up, make out, make love . . .

Yes, we make lots of things happen! But I want us to focus on the first definition of the active verb—to form something by putting parts together, to construct, to build, to assemble, to fashion, to create.

I grew up dirt poor in a tiny town in Mississippi, one of five girls in a family of matriarchs. Living on the edge of poverty forced upon us the necessity of being creative—as it has done throughout the millennia within all cultures. The proverb 'Necessity is the mother of invention' can be traced back to Plato's 'Our need will be the real creator." My family spent most all of our spare time making stuff required for day-to-day living. My grandmother, who we lived with, was a professional seamstress. She and Mama made all of our clothes from jeans to swimsuits to prom dresses. When my older sister got married, we all had a part in making her wedding dress. Even my dad helped hand-sew hundreds of tiny pearls onto the hand-appliqué lace. That wedding dress remains a treasure in my family.

Many people say that handiwork is therapeutic. I'm sure many of you know this firsthand. I am a true believer in this concept and have known for a long time that I am happiest when I am making something. My mind is fully engaged, and I am unencumbered by worrisome thoughts. Women from all across the globe have known this for centuries. Scientists now also know and are backing it up with evidence.

Neuroscientists and psychologists have determined that one of the best cures for depression is good old-fashioned working with your hands. Hands-on work satisfies our primal craving to create solid objects. Recent research suggests that when we immerse ourselves in activities involving planning, anticipation, and self-forgetting movement—gardening, crafting, sewing, knitting, drawing, spinning, weaving, quilting, crocheting, tatting, embroidering—we not only come back into the moment but also reduce stress and combat anxiety and depression.

Multigenerational surveys have shown that people born after the dawn of modern conveniences—not to mention the more recent onslaught of multiple devices—suffer more from depression than those born before World War II. Studies have also found very low rates of depression among members of Old Order Amish communities who sew their own clothes, tap their own syrup, and drive handheld plows through dry furrows to plant and harvest their own food. Researchers say they are not only getting a lot done, but are getting a serious neurobiological lift from all of their efforts.

Neuroscientist Kelly Lambert, chair of the psychology department at Virginia's Randolph-Macon College and author of "Lifting Depression," studied data culled from MRI scans tracking

human brain activation during different hands-on activities. She identified a network of geographically connected brain regions that appears to strongly influence well-being when activated by physical labor or hand work. This "effort-driven reward circuit," as Lambert calls it, includes areas involved with not only reward (the nucleus accumbens) but also emotion (the limbic system), movement (the striatum), and higher reasoning associated with anticipation, planning, and problem-solving (the prefrontal cortex).

When we activate our own effort-driven reward circuitry by spending time “making” with our hands, it squirts a cocktail of feel-good neurotransmitters, including dopamine (the "reward" chemical), endorphins (the "feel good" chemical released with exercise), and serotonin (the "pleasure chemical" secreted during repetitive movement).

Texting, scrolling, playing games on our devices does not do the trick.

When we knit a scarf or sew a quilt or throw a pot or crochet baby booties, Lambert says, the brain's executive-thinking centers get busy planning, then the happy-anticipation zone begins to zing with activity, talking back to the executive top brain and reaching out to other parts that make us dive our hands into the action, and calls on all those parts of the brain to communicate back and forth—THAT is what does the trick!

Seems too good to be true. So simple. But Lambert says don’t be fooled by the apparent simplicity, the neurochemical chain of events these activities trigger is very sophisticated and involved. Popping an antidepressant can never match it because it targets a single neurotransmitter (most often serotonin).

Neuroscientists have also found that unchecked mental stress actually shrinks brain tissue, causing emotional and cognitive decline. Yet physical activity—particularly the kind that promotes cross-brain talking between executive-planning centers and those governing motion—helps combat stress, not just in the moment but also down the line by producing new, healthier brain cells. I find that truly amazing.

Harvard psychologist and painter Ellen Langer has another theory about why handicrafts are so gratifying. They promote a fine-grained, joyful observing that is hard to come by when life flies by at its usual breakneck clip. She says that almost any creative activity presents an opportunity to slow down, to realize how much you've never noticed, which leads to the engagement of more brain real estate, and when we can tap into some new realm by returning to a beginner's mind and way of thinking, the whole game changes. An example: I taught drawing for many years. My beginning college students were most successful when I could find the rare object that they had never seen. They were forced to look more closely at that object because they could not make assumptions based on previous knowledge. They had to look with new eyes, as toddlers do.

I spend way too much time thinking about the things I should be doing with my spare time to help others and the planet. But when I imagine what makes me the most content in my alone time—or with others for that matter—I always land in the same place; surrounded by a bunch of random stuff and making things from it. That is the one thing that I know for a fact makes me feel stimulated, relaxed, satisfied, and happy all at the same time!

Consider this: Schedule a couple of uninterrupted hours and gather some things you have on hand—fabric swatches, paint swatches, needle and thread, glue, torn paper, cardboard, paint, yarn, old envelopes, wire, toothpicks, you name it—check your recycle bin too. Now sit down. Make something simple. Don’t overthink it. Just start. About anything you do will give you escape, pleasure, satisfaction, and maybe a little frustration. But still, whatever you do—even if you think it’s a disaster—don’t worry. Your brain still gets its feel-good jolt!