What is This Thing Called Transformative Love?
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Here we are at the end of a month of Sundays talking about transformative love. To review, Cal Furnish started us off speaking about affirming and promoting transformative love, and provided us with a wide range of examples, some of which took us beyond our comfortable forms of music and lyrics. He also described a suicide prevention conference he attended, where a mother spoke of her son who had killed another person and then took his own life. When she tried to share her pain with others, she had felt only grief and shame. When she received a warm welcome by the participants at this conference, she was stunned by her reception. Her pain and shame were likely transformed in some way by the love and acceptance the audience expressed. Cal used a range of examples of transformative love, and we could all relate when he quoted Supreme Court Justice Potter Stewart's line about hard-core pornography: "I know it when I see it."

Next, Jo Lynn Andrews shared Reverend Lisa Friedman's sermon on Standing on the Side of Love. The phrase, Standing on the Side of Love, has become a rallying cry for UUs across the country as they campaign for the causes of justice, equity, compassion, and non-violence. The love that is shared and generated in these public demonstrations is certainly transformative. UUs have stood together with other religious groups transforming a hate-filled act, or a public policy lacking compassion, into an event showcasing the possibilities of inclusion and respect. Imagine the effect of a great and gentle crowd that shows up in solidarity with the violated and oppressed. Is that transformative love? Perhaps not for every person present, but most will be touched, comforted, and inspired by such a gathering.

Last week, Cameo Galloway spoke of her personal journey of healing from traumatic loss. In spite of the tragedy, she came to realize that she must find and share the love within herself to restore herself to wholeness. Tapping into that source, she is learning to radiate love out into the world around her. By doing so, she is receiving back good will, warmth and kindness. She understands that this love is a two-way street, and described the kindness of others who have helped her along the way. She marked the receipt of a gift as one turning point when the world suddenly seemed a little brighter. She is choosing to find and use her light within to transform herself and her world. She described sharing her struggles through this pain as helpful to her healing. She is quite deliberately rebuilding her connections to the world. To do that she chose to stand up, look us in the eyes and speak her truth. In transforming herself, and sharing it, we were also transformed.

So, we recognize it when we see it, or feel it. What is this thing called transformative love? As I've thought and read about this topic, I've come to the conclusion that <u>all</u> love is transformative. We might agree or disagree on specifics, but let's start with the basics of love and go from there—and I'll try to make a case for why I think it's all transformative.

First, a couple of stories I'd like to share. One morning a few weeks back, I came to a stop at the intersection of Loucks and Brooks. It's a familiar 4-way stop that is automatic for most of us. As I started into the intersection, I realized the man in the car approaching on Brooks was not stopping. He looked up to see me and hit his brakes just after I'd hit mine and we both stopped in time to avoid a collision. These things happen every day, and the at-fault party's response varies: he could ignore me, look over with a vacant stare, a snarl, or even a little laugh. On this day, the fellow's facial expression and gestures, in a fraction of a second, conveyed surprise, remorse, and apology. And friendly good will. I would have bet my paycheck that he's a nice guy. I'd probably enjoy having lunch with him. Was that love at first sight? No, but it was a warm gesture that acknowledged my existence, took into account that he'd caused a small glitch in the flow of things, and felt an appropriate level of empathy for me. At a threshold level, it was transformative love. It certainly transformed me for the next few minutes. He had greased the skids of a social interaction that often ends unpleasantly and leaves a residual icky feeling. By making it end pleasantly, I think he had given me a little jolt of "feel-good" that left me smiling. I had another one of those encounters in Warehouse Market when I found I was accidentally in a gentleman's way two times in close succession. By the time we headed for the exit we'd made a sort of game of it and were both chuckling, a teeny bit transformed. He's one more potential friend out there in the world, even though our politics might not "click" as effortlessly as our gentle teasing.

Back in the 13th century, the Persian poet Rumi wrote a poem called *The Alchemy of Love.* In it, Rumi describes love as an action, the transformative power of the universe:

> You come to us
> From another world
> From beyond the stars and void of space.
> Transcendent,
> Pure,
> Of unimaginable beauty,
> Bringing with you the essence of love
> You transform all who are touched by you.
> Bringing joy to ruler and ruled
> To peasant and king
> You bewilder us with your grace.
> All evils transform into goodness.
> You are the master alchemist.
> You light the fire of love in earth and sky in heart and soul of every being.
> Through your loving, existence and nonexistence merge.
> All opposites unite. All that is profane becomes sacred again.

Over 800 years ago, Rumi anticipated and described what modern science has begun to understand in the past 10 years about love's capacity to synchronize, and

transform. To describe the subtle energy of love, and how it actually works, I will draw upon the research of Dr. Barbara Fredrickson, a social psychologist at the University of North Carolina, Chapel Hill. She has been studying positive emotions such as joy, amusement, gratitude, hope, and love for some 20 years. Her popular books include *Positivity* and *Love 2.0*. My talk is based on the information from *Love 2.0,* including several shorter articles based on that book.

Fredrickson writes that positive emotions are not static, but interactive, dynamic, shifting and changing our moods and biochemistry moment by moment. Positive emotions drive us toward greater connectivity with others, opening us up to a broader mindset and greater flexibility. This force, which Fredrickson has dubbed "positivity," serves to knit us into the social fabric of life uniting us with others, facilitating our growth and rebound through changing circumstances. Love, and other positive emotions follow what Fredrickson calls the ancestral logic of "broaden and build." Broaden and build is most easily understood by thinking about its opposite, which might be called "withdraw and bunker up." Just as the fight or flight response protects us from threats to our safety by causing us to take a protective stance, the response that is invoked by love, or warmth, allows us to "calm and connect." This impulse provides us with opportunities to broaden our social connections and build a relationship, build a system of networking, build a life. The pleasant moments of connectivity with others expand our awareness in ways that create lasting and beneficial changes—energizing the social system and setting it into motion. Seen in this way, love is a life-giving, life-enhancing source of energy, sustenance, resilience and health.

Although we tend to think of our bodies in terms of rather static physical qualities, Fredrickson reminds us that constant change is the only constancy, especially when it comes to living things. She points out that our heart alters its activity with each postural shift, each change in emotion. She emphasizes that our bodies are more verb than noun. They shift, cascade, and pulsate; they connect and build; they erode and flush. Scientists who study living, breathing, interacting bodies need to understand form and function, anatomy and physiology, nouns and verbs. In the study of the biology of love, verbs rule. What we need to understand is the action, the doing, the connecting, the ebb and flow of processes.

Neurotransmitters are naturally occurring chemicals used by neurons to communicate with each other and influence the activity of the brain. Neurotransmitters affect mood, energy level, pain, pleasure, weight, cognitive reasoning, the ability to form memories, and regulation of the immune system, among other things. Oxytocin is the neurotransmitter that has long been known to play a key role in social bonding and attachment, and for that reason it has been dubbed the "love drug." Oxytocin surges in men and women during sexual intimacy as well as in pivotal interpersonal moments when new social bonds are made or old ones are cemented. Parents recall the intense feelings of falling in love with a new baby, and it is oxytocin that drives the cuddly feelings as well and the synchrony of interactive cooing, smiling and baby talk. For women, childbirth and lactation cause

blasts of oxytocin to be released. If the ladies in the audience have undergone an "induced" labor, it was Pitocin (synthetic oxytocin) that got things going in the delivery room.

Although scientist knew about the events associated with such large blasts of oxytocin, it was only recently that they realized oxytocin was also involved in more routine activities, such as playing with your children, chatting with a new neighbor, or completing a business transaction. Love—and oxytocin--are found in those moments of warmth, connection and openness to another person. Its presence—and its absence---alters the biochemistry of our bodies and even our ability to read and navigate our social context. Only in the last few years have we developed the technology to study the subtle interplay of receptivity, reaction, and connection that oxytocin mediates. In addition to the influence of oxytocin on the brain, there's a second player in this vastly simplified description of love. The vagus nerve is the tenth cranial nerve that runs from your brainstem to your heart, lungs and other internal organs. It is the brain (the locus for our feeling of being "in synch" with another person), the hormone oxytocin (circulating through your brain and body), and the vagus nerve that work in unison to orchestrate our warm feelings toward others. They nudge us to pay closer attention to others, and forge connections when possible. The vagus nerve is part of what we call the autonomic nervous system (involuntary nervous system) because it is not under our conscious control. More of this a little later.

Experiments in Europe within the last 10 years demonstrated oxytocin's power to shape social interactions. Laws permitted researchers to use of Pitocin (synthetic oxytocin) as a nasal spray for experimental purposes. Subjects were instructed in the rules of an investment game played with real money and assigned to one of two groups (Investors and Trustees) and their levels of oxytocin were monitored. Here's the game: Each Investor and Trustee was given an equal amount of money. To make money, the Investor had to entrust his money to the Trustee, who could triple the Investor's funds. The Trustee could then split his holdings with the Investor but he didn't <u>have</u> to. If he did, both would have doubled their funds. Investors given the Pitocin entrusted their money to their Trustees more than twice as often. What's more, the experience of being entrusted with another person's money raised the Trustees naturally-occurring level of oxytocin, and the greater the rise, the more the Trustee shared his earnings with his Investor. The findings suggest that through synchronous oxytocin production, trust and cooperation quickly became mutual. Subsequent studies have indicated that sharing confidential information with another person increases naturally occurring levels of oxytocin—raising confidence that the person is worthy of your trust to guard your privacy.

It should be noted that the effects of oxytocin do not induce indiscriminate trust. Its effects include becoming more open to sensitive interpersonal cues and signals so that a person remains capable of discerning whether someone is worthy of trust. Oxytocin modulates the activity of the amygdala, the subcortical structure deep within your brain involved in emotional processing. With small doses of oxytocin,

the parts of the amygdala focusing on threats are quieted, while the parts tuning in to positive social events are increased. This helps a person glide through stressful social situations, allowing a person to behave more positively, verbally disclosing more feelings and making more eye contact and friendly gestures. Behaving kindly in these ways also increases naturally-occurring levels of oxytocin, which in turn, curb stress-induced increases in heart rate and blood pressure, reduce feelings of depression, and raise the pain threshold.

In general, oxytocin plays a key role in the mammalian "calm and connect" response (in contrast to the fight-or-flight response). Oxytocin calms fears that steer us away from interactions with strangers, and sharpens our skills for connecting. It helps us pick up on cues that signal another person's good will, and guides us to approach them with our own positive intentions. Because all of us need social connections to survive and thrive in the world, oxytocin has been called "the great facilitator of life." What makes this so miraculous is that it jumps the gap between people—another person's oxytocin flow triggers our own. It is a great facilitator of synchronicity. As Fredrickson puts it, "Love…builds lasting resources (by that she means bonds between people). Oxytocin…swings the hammer."

Now for a quick look at the role of the vagus nerve (10th cranial nerve) in the "calm and connect" response. It's the vagus nerve that soothes our racing heart following a "fight or flight" response. It is also involved in the biological processes underlying the bodily experiences of connection with others. A part of the involuntary nervous system, the vagus nerve stimulates tiny facial muscles that facilitate our ability to make eye contact and synchronize our facial expressions with that of another person. It also adjusts muscles in our middle ear to better track the other person's voice against background noise.

This may be more than you want to know about the vagus nerve, but here goes. There is a way of measuring the strength of your vagus nerve by tracking heart rate in conjunction with breathing rate. There are subtle changes in your heart rate as you inhale and exhale. When you inhale, the vagus nerve eases up on the brakes and allows your heart to speed up a bit to maximize the amount of oxygen circulating in your blood and available to your lungs. When you exhale, the vagus nerve puts the brake back on, slowing the heart rate a little. This subtle arrhythmia makes a pattern called vagal tone that increases the routine efficiency of your heart. It also reflects the strength of condition of your vagus nerve—a sort of nimbleness. The higher your vagal tone, the higher your flexibility across a range of physical, mental and social domains. A toned vagus nerve better regulates glucose levels and inflammation. better manages attention and emotions, and better navigates interpersonal connections. According to Fredrickson, the greater agility, attunement and flexibility of a toned vagus nerve literally improves our ability to navigate the ups and down of daily life, and allows for more moments of positivity resonance (love, or connectivity).

In more recent studies, Fredrickson has found that loving-kindness meditation practice improves vagal tone, which she describes as the biological capacity for experiencing love. Although Fredrickson may have gone a bit over the top quantifying connections between neurological processes and love, I do think the underlying science is fascinating. To live in this age of the expanding understanding of the brain is an extraordinary privilege.

We can feel our own emotions register physically in our body and have an explanation for how it happens. We know when we interact with another human being and feel some kind of connection, call it love or warmth, it transforms us at a physical level. In most cases it is mutual—both individuals fine-tune their response to the other, transforming each other in the process. That's why I think all love is transformative. It's as though oxytocin jumps the gap, not only at the level of two neuronal synapses, but also at the level of two people.

We understand that we have an autonomic nervous system that exists to help us navigate subtle changes in expression, tone, even intention. This system tunes up and down, rendering us more or less relaxed, more or less open, more or less receptive to what that other doing. We can fight, flee, or freeze, or we can calm, connect, and synchronize. Even more astonishing, we have some conscious control over these "automatic" systems because we know how they work. We know that loving-kindness meditation can increase our capacity to attune to the world, adjust to and evaluate subtle social events, and optimize our ability to interact, think, and live.

Allow me one more point before I finish. To me, it is interesting to take a look at our UU values in the light of this research. To see our principles in action—and then to correlate this with what we know scientifically to be working inside our heads and hearts—is to breathe new life into the effort. Our actions can effect tangible changes in the experiences of others; we literally can choose ways to act for ill or for good. Think about oxytocin and the 10th cranial nerve behind the scenes, inside us and every other citizen of the world, as I describe the techniques of one advocate for social justice. And think about what she is building as she walks toward another person.

Sister Simone, who gave the keynote speech at General Assembly last June, is a religious leader, an attorney, a poet, and an advocate for compassionate public policy for the past 50 years. She talked about her advocacy by describing how she walks. When there is trouble or pain, she walks toward it. To make her efforts effective, she must walk with uncertainty (letting go the certitude or righteousness of her opinion). She opens herself to being surprised, and walks "willing" to risk and be present with another who has a different perspective. She walks with an open heart to learn deeper truths, reminding herself that reality is more important than theories or opinions. She walks toward community and truth, prepared to radically accept in order to find a way to stand side by side, where they look at a problem together, see where the commonalities are, see who is left out, and invite more

people in. She concludes that when we walk toward community—or build loving connections—we become aware that we're all in this together, we are not separate.

To conclude, I'll share the words of Antoine de Saint Expéry:

> Love does not consist in gazing at each other, but in looking outward together in the same direction.

Closing words: Some day, after mastering the winds, the waves, the tides and gravity, we shall harness for God the energies of love, and then for a second time in the history of the world, man will have discovered fire.

Pierre Teilhard de Chardiin