2021 Virtual Research Symposium Proceedings

Day 1

Jimmie Briggs and Jesse Lipscombe

Black Fatherhood: A Conversation Across Borders

(available soon)

Dr. Dan Siegel

Dissolving Borders Through Empathy

Empathy is sometimes equated with emotional resonance; it's sometimes said that too much resonance can cause burnout. This has led to a belief that empathy is negative and should not be encouraged, while compassion is positive. I find this perspective limited, as empathy is highly beneficial to our well-being and our connections with ourselves, others, and the natural world. To explore empathy from a scientific perspective, we'll be using the framework of interpersonal neurobiology which combines several different disciplines of science.

Emotional resonance, or feeling another person's feelings, is just one facet of empathy. Others include perspective-taking and cognitive empathy, which involves using knowledge of another person to understand their reality. Empathic joy involves excitement at another's successes. The fifth facet of empathy, empathic concern involves concern at another person's suffering, which leads to compassion and the urge to act.

In Roots of Empathy, I think all five facets of empathy are cultivated beautifully.

What's the connection between empathy and well-being? The relationships we have with our own experiences, with other people, and with nature can be all identified as spatial paths of energy flow. This energy is not bound by the body, but can also be shared among human beings, as in interpersonal relationships. Studies show that all three of these types of relationships are beneficial to our well-being.

In modern, individualistic culture, we generally and subconsciously equate the 'self' with one's physical body. When the self is viewed as entirely individual and separate, the default mode network in the brain is activated excessively, which can lead to poor mental health outcomes and a sense of disconnection.

However, the self is not only inside the body; if the self is considered a centre of experience, one's sense of inner life could be considered inner empathy. The self can be defined as including sensations, perspective, and agency (SPA). We all have internal SPA, but our relationships with other people and with nature are relational aspects of the self that can be sensed with these five facets of empathy.

For an exercise in shifting identity lens, take a look at your thumb, if you are able to do so. If not, you may use your hearing. Now, look just beyond your thumb and focus on a specific, nearby object; notice how it is no longer part of your body, but of the world. Next, continue to look past your thumb, but let that focused lens become wide and take in the whole panorama in front of you. Notice that the world itself also has a sensation, perspective, and agency to it; agency in the sense that you can act on behalf of the world, by supporting positive causes such as environmental protection and social justice.

This shift in perspective allows us to realize that we are all a part of one whole. The way I try to remember this broader identity lens is to realize that we have a close 'me', but we also have a relational 'we', which can be combined into the integrated identity of 'mwe', a broader belonging. That is how we let empathy blossom in our lives; together, 'mwe' can make this a more compassionate world for all of humanity and nature.

Dr. Michael Ungar

The Empathy Question: How Does Our Experience Of Social Justice Impact Empathy?

(available soon)

Dr. Richard Davidson - Keynote Speaker

How Do We Solve Our Crisis Of Well-Being?

I am a neuroscientist by training. I began my career with a simple question that is still applicable today: Why are some people more vulnerable to life's challenges than others? More recently, however, I've tried to focus more on the positive side of this question: What qualities can we develop to become more resilient?

We have an urgent need for these qualities in the world today. Rates of distractibility, loneliness, depression, and anxiety are skyrocketing. We have a crisis of well-being, and we must understand that the qualities underlying well-being can be learned. We do not have a fixed amount of kindness or empathy; rather, these skills can be nurtured through training.

This perspective is based on trends in modern science. The first of these is neuroplasticity, meaning that our brains are constantly being shaped by new experiences, often unconsciously and in ways beyond our control. However, we can still take more responsibility for our own brains by cultivating healthy mental habits. Neuroplasticity can help us understand how certain kinds of training can mold the brain and facilitate the enduring expression of empathy and compassion.

Another aspect of modern science is innate basic goodness. This means we are born with an inclination towards caring, prosocial behaviour. When studying infants, scientists have found that within the first 6 months of life, if infants are given a choice about whether to watch a cooperative, prosocial encounter or an aggressive, antisocial encounter, more than 90% of infants prefer to watch prosocial encounters. This is before learning has occurred, suggesting it is innate. Research also demonstrates that if a baby in a neonatal ICU ward begins to cry, other babies nearby are more likely to also cry. This mimicry is the early roots of empathy.

Based on this contemplative and emotional neuroscience, we are starting to understand the keys to wellbeing, which are vital to empathy and compassion. In this framework, there are four key pillars of wellbeing that can be trained and cultivated.

The first is awareness, or the ability to know what our minds are doing. The second pillar is connection, which is about the qualities needed for healthy social relationships, including empathy and compassion. The third pillar is called insight. There are people who hold beliefs about the workings of their own minds that they may not be aware of, but these beliefs shape their perception of the world. Applying awareness and having insight into the beliefs that shape our minds can liberate us from the constraints of these expectations. Finally, the last pillar is purpose. Purpose is about finding our sense of direction in life and aligning our daily behaviour around it. There is evidence that a strong sense of purpose is the foremost psychological predictor of longevity in later life. These qualities make a real difference for both our physical and psychological well-being.

Now, let's return to empathy and compassion. When a person is empathizing with someone else, they take on that person's feelings. If I am a skillful empathizer, the circuits in my brain associated with pain will activate when I empathize with someone in pain. This is how we can feel the emotions of another, which is part of empathy. Science demonstrates that exercising empathy causes changes in the brain that are similar to the person that is suffering.

The brain activity associated with compassion is very different. Compassion, unlike empathy, is the inclination to help relieve another person's suffering. There are practices from the contemplative traditions of the East that are designed to cultivate empathy and compassion. These practices highlight the different brain processes associated with each.

When a person exercises compassion, the brain circuits associated with positive emotion and action activate. Compassion prepares a person to act when suffering is encountered. Empathy and compassion are therefore connected. To empathize with someone, we need to experience some of their emotions, which is precursor for compassion. Empathy can inform us about the suffering of another person, and then we can transform that information into compassion to relieve that suffering.

This knowledge can help us develop strategies to help people, particularly in the helping professions, who experience "compassion burnout", which is perhaps more aptly called "empathy burnout". If we can help people transform empathy into compassion, this could be very beneficial, since compassion activates circuits in the brain associated with positive emotions. It feels good to help someone else using compassion, so it's nourishing rather than depleting.

Each of these four pillars – awareness, connection, insight, purpose – can be strengthened through simple practice. Since we are innately prosocial, qualities associated with connection, like empathy, appreciation, and compassion, can be strengthened easily. Research shows that even a few minutes of practicing these qualities can produce a change in objective behavioural and biological measures.

We humans haven't been brushing our teeth since we first evolved, but I'm sure everyone here brushes their teeth. This isn't part of our genome, it's something we've learned to do because it's important for our health. Similarly, cultivating empathy and compassion is important for our mental hygiene, and if we spent even as short a time as we spend brushing our teeth on practicing these qualities, we believe the world would be a very different place.

Our Centre has an associated non-profit that has developed an app including these four pillars of wellbeing. You can learn more about it by going to the website tryhealthyminds.org and

downloading the free app, available worldwide. You can learn how to engage in simple practices for just a few minutes a day to nurture qualities such as empathy and compassion. We invite you to nourish your own well-being and join us on this journey.

Day 2

Hon. Christy Clark, Tamara Vrooman, Shahrzad Rafati

The Future Of Leadership - Three Powerful Canadian Women On What It Takes To Lead

Ms. Clark, moderating the discussion, began by asking the other panelists to share how the pandemic had affected their leadership style, and if they felt that empathy could play a role in healing from the effects of the pandemic.

Responding first, Ms. Vrooman remarked that empathy is an underrated leadership trait, just as vital as vision or leadership, and that understanding the perspectives of staff and customers and designing business processes accordingly was crucial to her leadership style, especially during the pandemic. Ms. Rafati agreed, adding that empathy is more important than ever during the pandemic and that it is a defining factor of successful team-building because it encourages a team to foster the values that bring them together.

As a female leader, it is difficult to be both tough and liked, Ms. Clark continued. She asked the panelists how they navigate that to practice empathy at work while still appearing capable.

Leadership, Ms. Vrooman began, is a two-way street; an empathetic leader must be able to see and understand the experience of the other while also being willing to share experiences and vulnerabilities. She has noticed, personally, that this behaviour leads to positive changes, and expressed the importance of redefining leadership to focus more on empathy as less of a "soft skill" and more of an "essential business competency". Ms. Rafati further pointed out that half of the women in the world do not make their own income and building an equitable business can lead to a more ethical and higher-performing organization.

Ms. Clark then asked the panelists to offer some practical advice for ensuring that employees in the workplace can trust that they will be heard by leadership, and that their commentary will impact the future of the business.

During the pandemic especially, Ms. Vrooman's organization has focused on opportunities for two-way exchange, including weekly all-staff conversations, which she felt has built positive communication. She added that transparency around progress and leadership behaviours are both very important, as is accountability. Ms. Rafati agreed, also expressing pride in her team for the supportive environment they have built. The pandemic, she continued, has illustrated the importance of leadership, with different world leaders demonstrating very different results in managing the crisis, with absences in leadership keenly felt. She expressed her belief that great leadership is key to problem-solving, and empathy is, in turn, important to strong leadership.

Drawing on past experiences, Ms. Clark commented that balancing long-term, emotional investments in others with completing urgent tasks and projects can be very challenging. She

asked the panellists if they felt that practicing empathy could be financially detrimental to a business, as it may distract from vital tasks.

Ms. Vrooman responded that the opposite was true: it costs an organization money to not be empathetic. Not considering the needs of your employees, customers, and communities prevents leaders from seeing risks and potential pitfalls. Innovation often stems from solving a problem from a different perspective, which can involve empathy. The two are therefore not in conflict. Ms. Rafati agreed that empathy in the workplace is highly beneficial for business. Empathy drives inclusivity, and companies that are more inclusive are higher-performing; empathy and performance therefore go hand-in-hand. Empathy builds culture, which allows leaders to better serve employees and customers, which drives innovation and positively impacts business.

Prof. Mary Helen Immordino-Yang - Keynote Speaker

Solving The Frankenstein Problem: The Importance Of Empathy And Social Interaction In Brain Development

The pandemic has laid bare just how important kids' relationships and emotions are for the way they develop. The science is revealing that the empathic emotions we engage in are not just about developing one's ability to be a social person, they're also about developing the same brain platforms that are used to think about other things.

I'd like to start this talk with a painting by a colleague of mine, Margaret Lazzari, who painted this huge seascape with white squiggles in the middle. They look like waves in the water, or reflections of clouds; what they actually are is the white matter from a person's brain. A volunteer let us take pictures of their brain, and then we peeled all the little cells that do the firing off of the picture. What's left is this network of billions of tubes that are making sometimes hundreds of thousands of synaptic connections all the way down into your whole body and back up again. This is an image, to me, of the network that makes this person who she is.

This network develops based on our genetics and evolutionary history, but we're also discovering that it is strikingly dependent on how we relate to others – that we have a need for interdependence on others in order to grow our brains. The patterns of thinking and feeling young people engage in shape the kind of brain they grow. That's why it's so important to help them learn to situate themselves in social relationships and to think about how their activities impact others. A program like Roots of Empathy capitalizes on this to teach young people to think purposefully about how they want to think, feel, and behave. That is the essence of healthy development.

Look at a picture of a newborn and mother. Immediately after birth. This is the first time they've met each other while they're both awake. Think for a moment: What's going on socially, cognitively, emotionally, and culturally in this image? The answer might be different in different places.

This newborn is asking for what she needs, that magic moment when you lock eyes with an infant. Neurologically typical infants bring into this world an automatic built-in reflex that says "when you see two dark dots in this configuration, stare". So, what's it for? It's the beginnings of

a relationship with your mother. It's the beginnings of engaging in a relationship that we hope will last our entire lives.

Our development is inherently social from the get-go. The newborn's biology expects there to be a human to look at when she opens her eyes. The mother comes thinking: "I'm expecting you to show me what you need; let's build something together". That empathic resonance is the essence of human development. We need high-quality, direct interactions that become fodder for deeper cognitive and emotional meaning-making that extends across a person's lifespan and enables them to engage with themselves and others.

This is a song that my daughter wrote when she was in kindergarten for her baby brother, Theodore, who she calls 'Teddy'. She says: "Oh, Teddy. We love you more than the whole Earth size. As the Earth spins every day, we love you as much as usual but sometimes even more as you make us proud and happy that you're you."

What is this about? Is this a poem about this little girl's love for her baby brother? Or is this a poem about her budding interest in planetary science, which she's now studying in college? It's both. Our empathic emotions and our relationships are the foundation on which we build other kinds of knowledge. They are not separate.

In the brain, the emotions you feel utilize the same brain systems that keep you alive – that keep you conscious and able to breathe and keep your heart beating. No wonder they're so fundamental to our well-being.

When looking at an image of the brain where we can see what areas are active via neuron firing when people said they felt strongly about a social story there are some findings of note.

The first is the brain stem, a part of the brain that is essential for survival. This area is activated when people are thinking about social stories that feel meaningful to them. We also have something called the anterior insula, which is the same part of the brain that regulates your guts and viscera. These are the platforms in the brain on which we feel emotions and on which we steer our thinking. No wonder my daughter wrote a poem about her love for her brother and her understanding of the planet. They go together in our minds.

This is the essence of the Frankenstein title. Our ability to feel emotions and understand things is not a bunch of little mechanisms that scientists can stitch together. It's a deeply integrative co-layering of all these ways of being that are fundamentally about situating our own emotions – in the most direct, embodied way – into this thinking process.

Healthy development allows us to engage systematically with others in these fluid, co-constructed interactions in which we come together to construct our ways of thinking and understanding, in ways that allow us to be thoughtful humans who can work together throughout our lifespans.

Emotions happen automatically, but we need to learn how to *feel* our emotions, which is what a curriculum like Roots of Empathy does. It's among the most important work on the planet, generating well-being in our next generation of little citizens.

Dr. Andrew Meltzoff's Interview with David Bornstein

Acting For And Against Others: The Beginnings Of Altruism And Bias In Children (available soon)

Dr. Bruce Perry

The Empathy Question: Why Is Empathy Vital To The World?

(available soon)

The Honourable Justice Murray Sinclair

2021 Recipient Of The Empathy Award In Social Justice

(available soon)