Social Ecology This is my mountain, my river

By John Fawcett

What connects us to other people? What connects us to real places in the landscape? What makes social cohesion?

Often when we consider social connections we use metaphors to describe our experience. We say things like *"this place is in my bones"*, or *"I feel really good about you"*, or *"when I arrive in this location I feel like I am at home"*.

These metaphors are, we imagine, ephemeral, or insubstantial. They relate to unmeasurable feelings connected to memory, to experience, to a developing friendship or an event that occurred in time and place. This place, we tell ourselves, is home because of the *story* about this location and me.

In essence we are really saying that these metaphors describe relationships that are not measurable. We know they are true because the *story* rings true.

What if this is *not* a metaphor? What if this mountain, this river is mine because I am, literally, built out of the physical reality of this place? What if the feelings I have about places and people are directly connected to vibrant, living ecosystems that live not only external to me, but internally inside my living body?

continues

Being 'connected to the land' was once the theory of poets, magicians, shaman and holy people, and derided by those invested in western scientific objective analysis. But it is now becoming apparent that human beings live within complex connected physical relationships with living environments, both external and internal to us.

These 'ecological social communities' exist in both time and space, and directly influence our perceptions, cognitive processes, moods, and physical health.

If we intend to enhance social relationships within and between communities of people, we are going to have to pay a whole lot more attention to the billions of living organisms *inside* our bodies, and the mountains and rivers that form the landscapes of our origins.

When tangata whenua use the phrase "*my mountain, my river*", western scientific perspectives places a figurative rather than literal meaning. This may be seriously wrong. There are real, measurable, physical connections between people and people, and between people and place, and between people and other living beings. Further, these real, physical connections may have a critical role in setting and maintaining these relationships from the moment we are born, if not before.

Let me, very briefly, list some of the things we are learning about individual identity and social relationship, and how these are directly impacted by the ecology within our body.

1 DNA – the unique structure of our body

We inherit our personal unique genetic. We accept that genetic conditions may be inherited. We understand our DNA as the structural framework of our body that essentially does not change through our lifetime.

It may be more appropriate to view DNA as a massive number of switches that can be turned on or off. This is not an entirely new understanding, but in the past we believed that this switching occurred in the womb, and later only rarely through exposure to radical events in life.

It seems that DNA switches can be turned on and off by exposure to things as simple as what we eat. A gene turned on or off in one person can then be handed down to subsequent generations.

This switching or, technically, 'gene expression', can occur at any time in life, and has radical impacts on how we function, what we think, and how we experience emotions.

2 Gut biota – the animals that live within us

We have known for a long time that bacteria and other microorganisms live in our gut. These are essential for processing food and help in digestion of what we consume.

These billions of organisms essentially 'train' our human immune system to recognise things that will harm us and things that will do us good. This training continues all our lives, and if our diet should change the internal community changes and adapts as well, sending information to the immune system to modify protective aspects of the physical body.

This community of organisms also directly influences, and may even control, the release of important hormones. Hormones related to pleasure, to depression, to cognitive awareness to stress, fear, and laughter. This living community inside our body causes mood swings. It is possible that these creatures may be influential in conditions such as Alzheimer's and other cognitive functions.

The social community, the culture, if you like, that lives within us is unique to us. It is, literally, a source of our nourishment, health and feelings. When we say we "*feel it in our gut*", this may well be literally correct.

How we survive, how we live, is dependent on effective social relationships with these independent living creatures that have made our body their home.

③ The food that feeds us – mud, sand, and water

The West is obsessed with cleanliness. Children, in particular, have been the targets of much of this obsession. We now know this is counterproductive. Exposure to dirt early in our lives helps our immune system build expertise in managing the environment we live in. We are beginning to encourage children to play in the mud, eat the sand, and jump into the water. For the sake of their health.

This is not a passive process. It is about creating *social community*. For, as we play in the dirt and swim in the rivers, we commence the process of inviting billions of animals to live inside us. We inherit a base range of these creatures from our mother, but the rest come from the places we live in the first few years.

In a sense we are farmers. We build a massive farm or zoo of creatures inside our gut that are specific to us, but, more significantly, are specific to where we grow up. We feed these organisms from the food we ourselves ingest. They become part of an *internal social network* that provides protection from disease, immunity from infection and production of hormones to help us be safe and happy.

Individually we are societies or communities of billions of living organisms. This community has a unique profile. It is literally fed from the dirt, mud, sand, water, and air where we live. It comes from those around us, human, animal, and plants.

When we say *"this is my mountain, this is my river"*, this is quite literal. We, this individual community of living beings, is made, fed, and watered by this mountain and this river.

How do we know we are happy?

We know that the organisms that live in our gut influence the production of hormones like serotonin, adrenaline, and dopamine. These hormones are directly connected to pleasure and feelings of health.

It is not stretching the science too far to suggest that one of the reasons we might feel at home with certain people, certain animals, and certain environments is, quite literally, the *physical* connections we have with those others.

If any of this proves to be true then the ways in we enhance social relationships and build community need to change. We will need more physical and environmental practices.

Creating identity & meaning

Interested in establishing identity and meaning? If you want your children to know their 'place' in life', then go and have your children birthed in that place. Stay there five years. Send them outside to play in the mud, eat the sand, and drink the water.

Make sure they spend copious hours in close physical contact with people you want to be their whānau. Serve food prepared by significant whānau. Nothing ever tastes as good as the food Mum or Grandma prepared, and



no steak ever tastes the same as Dad's. Fish caught from *these* waters always tastes best.

Build a sense of *home* in your child's DNA. Switch on as many of those DNA genes as you can about *this place* and *these people*. Train the millions of creatures inside your child to recognise *this* mountain, *this* river, as their home.

Tell them stories as well, of course, so they have the cognitive resources to fully create their sense of identity, meaning, and place.

Because, quite literally, we are socially and physically connected to the land, the water, the air, and all living things that we engage with on a daily basis. The land has made its home inside us, as we make our home inside the land.

We must pay attention to the landscape that lives *around* us. It is, quite literally, a matter of life and death.

We must pay attention to the landscape that lives *within* us. It is, quite literally, a matter of life and death.

