

Chapter 5 – Co-intelligence and participatory sustainability

We need to expand intelligence

Intelligence is, in its most basic form, our capacity to solve problems and to learn from our experience and from each other.

To deal with the problems and learning related to sustainability, we need expanded forms of intelligence. To develop a sustainable society we need to think about and respond creatively to the dynamics of complex human and natural systems operating over extended periods of time.

Therefore, we need forms of intelligence that can embrace the wholeness of life, that can comprehend and respond in terms of life's interconnectedness, and that can creatively contribute to the evolution of the living systems in which we live.

We are already amply endowed with forms of brilliance that create their miracles by ignoring such wholeness and interconnectedness, forms of intelligence that help us achieve short-term, narrowly framed benefits without attending to long-term broader costs and systemic effects. For all the benefits of progress these narrow forms of intelligence have brought us, they have been and still are potent drivers of our unsustainable lifestyles and social systems.

If the sustainability we seek is participatory – as this book proposes – then we also need forms of intelligence that welcome and can usefully integrate diverse perspectives and gifts coming from many diverse participants. We need intelligence that enhances and focuses the co-creative and self-organizing powers of life. We need forms of intelligence that reach beyond individual brilliance to help communities, organizations, countries, and whole civilizations generate the wisdom they need to function well and sustainably.

Co-intelligence – a concept coined by the author in the early 1990s – offers a framework for developing a class of interrelated forms of intelligence that take wholeness, interconnectedness, and co-creativity seriously. Co-intelligence is uniquely pertinent to the challenge of participatory sustainability.

Intelligence and evolutionary fitness

Many definitions of intelligence exist, including the simple one at the start of this chapter. More technically, for our purposes here, it is useful to view intelligence as a cognitive feedback system, a

cycle that includes perception, reflection, memory, action, and – as those functions iterate – learning.

We use this cognitive cycle and the feedback it gives us to generate a sort of ongoing congruence between our mental models – our ideas, beliefs, stories, conceptual understandings, and so on – and the real world around us. The more our mental models match the realities around us, the more appropriate our actions tend to be. And that, significantly, means we are maintaining a better "fit" with our environment.

In the Darwinian worldview, environmental fitness is the *sine qua non* of survival. Our "fit-ness" – a congruence continually adjusted by our intelligence and the ongoing learning it supports – allows us to persist, to sustain ourselves and our communities, to maintain our civilization and our species. To the extent we fail to maintain that fit-ness – especially collectively – we fail in our life activities and ultimately die off. Hence, we find that our intelligence capacities are *intimately* related to our sustainability.

What is co-intelligence?

Co-intelligence is intelligence that takes wholeness, interconnectedness, co-creativity and participation seriously. Co-intelligence is collective, collaborative, synergistic, wise, empathic, heartfelt, and connected to greater sources of intelligence. It is often marked by how creatively it uses dissonance and diversity.

We find co-intelligence – and its opposite, *co-stupidity* – in:

- Individuals
- Groups
- Organizations
- Communities
- Networks
- Societies
- Processes
- Systems
- Institutions

Intelligence in each of these domains can be co-intelligent to the extent it calls forth collective wisdom in and around it, i.e., when it accesses the wisdom of the whole on behalf of the whole.

Six dimensions of co-intelligence

Taking wholeness, interconnectedness, and co-creativity seriously requires re-examination of and reworking of certain common assumptions regarding intelligence. Six revised assumptions form the basis of current co-intelligence theory. These are summarized briefly below, and then described in more detail.

- *Co-intelligence involves moving beyond linking intelligence to controlling and predicting things, since linear cause-and-effect perspectives seldom take adequate account of – nor engage well with – the complexity and co-creativity of life.* The co-intelligence perspective acknowledges, engages and supports collaborative, co-creative forms of intelligence.
- *Co-intelligence does not limit intelligence to logical reason, since rationality constitutes only one aspect of our full capacity to learn from and relate to life.* The co-intelligence perspective acknowledges, uses and supports multiple forms of intelligence.
- *Co-intelligence does not limit intelligence to the capacities of individual brains, not only because any one person's perspective is inherently limited, but because we need whole societies and systems to act intelligently.* In other words, we need to develop group and systemic capacities for intelligence. So the co-intelligence perspective acknowledges, uses and supports collective intelligence.
- *Especially when dealing with sustainability, co-intelligence questions the assumption that we are separate from each other and from the rest of life, and that our intelligence should arise from and serve that separateness.* Because of our kinship with all life, holistic forms of intelligence can and should naturally arise among us and through us. The co-intelligence perspective acknowledges, uses and supports resonant, empathic intelligence, intelligence arising from and functioning within a sense of relatedness to and rapport with the life around us.
- *Co-intelligence involves moving beyond assumptions that limit intelligence to human mental prowess.* Certain forms of transpersonal, non-human and transcendent intelligence are inherent in life and even in (and perhaps beyond) the very structure of the universe. Such intelligence is accessible through observing natural patterns and (for some people) even through psychic and spiritual practices. The co-intelligence perspective acknowledges, uses and supports what we might call universal intelligence.
- *Co-intelligence definitely involves moving beyond forms of intelligence focused on addressing obvious short-term needs and problems.* We need intelligence to engage with the wholeness, relatedness, and long-term nature of reality, with deep human needs and aspirations, with the nuances of knowledge, and with humor and humility. So the co-intelligence perspective acknowledges, uses and supports many forms of wisdom.

Now let us look more closely at each of these dimensions of co-intelligence.

Collaborative intelligence

Collaborative intelligence utilizes the fact that our intelligence potential expands as we creatively respond to life and join with its energies. Using collaborative intelligence means finding and

working with any and all available allies and cooperative forces around us. There are always energies, both existing and potential, with which we can fruitfully align – even within the hearts of adversaries, the problems we face, and the dysfunctional systems we occupy.

Instead of judging consumerist lifestyles, for example, we can work with the built-up frustrations and longings they generate to turn people increasingly toward simpler, more sustainable lifestyles that better satisfy their deeper needs. The profit hungers of entrepreneurs can be turned towards greening the economy.

Bill Mollison, co-founder of the ecological design science of permaculture, articulated this perspective brilliantly when he wrote, "Rather than asking, 'What can I get from this land, or person?' we can ask, 'What does this person, or land, have to give if I cooperate with them?' ...

Everything is a positive resource; it is up to us to work out how we may use it as such." [70](#)

Working *with* one another, *with* nature, and *with* the natural tendencies in us and in the world, we can accomplish more with less, and enjoy it more. Practitioners of the nonviolent martial art of Aikido and of improvisational jazz use non-intellectual forms of collaborative intelligence to flow with the energy of those around them. Since sustainability requires especially working with nature and participation requires working well with each other, this form of intelligence is a tremendous asset for participatory sustainability.

Multi-modal intelligence

Multi-modal intelligence arises from the fact that there are many ways to learn, to know, and to engage with the world. Our bodies, minds, hearts, and spirits contain a full palette of intelligences – emotional, analytic, intuitive, aesthetic, kinesthetic, narrative, moral, and so on. We can use more of these and integrate them better, especially in synergy with other people, since we are all capable in such different ways.

This revolution in our view of intelligence was pioneered by psychologist Howard Gardner in such books as *Multiple Intelligences: The Theory in Practice*. Many other psychologists and business consultants have since introduced other models, notably Edward deBono's "six thinking hats", Elaine de Beauport's *Three Faces of Mind*, and Daniel Goleman's *Emotional Intelligence*. Roots of multi-modal intelligence theory can be seen in earlier theories of personality ranging from astrology and the Enneagram to Jungian archetypes.

The more ways we tap into and utilize this diversity of intelligences to engage with the complexity and aliveness of our human and natural worlds, the more likely we will develop and live into approaches that actually sustain us – and the more different kinds of people we'll be able to engage in the effort.

Collective intelligence

Collective intelligence is generated through evolving shared understandings and interactions and through the social structures, cultures, and technologies that shape those understandings and interactions. Families, groups, organizations, communities, and entire societies can act intelligently (or not) as whole, living systems. Interestingly enough, the individual intelligence of their members can serve or *undermine* their collective intelligence, depending on how well people work together and the nature of the systems they're embedded in. All of us together *can* be smarter or stupider than any of us individually, depending...

What we believe, what we do, the technologies we use, and how we organize our collective affairs can make or break our ability to generate collective intelligence. Knowledge systems – for example, networks that enable the co-creation, sharing, and preservation of information (records being a form of collective memory) – are key large-system supports for collective intelligence.

Inclusiveness – involving all relevant players and perspectives – and the creative use of the resulting diversity and disturbance are two more key elements. Individual capacities such as listening, tolerance, and participation are obviously also vital. Research by MIT's Center for Collective Intelligence found that even the number of women in a group contributes to its collective intelligence.^{[71](#)} Many factors influence collective intelligence and there is increasing interest in identifying and addressing those factors.

Collective intelligence was first popularized in the early 1990s by organizational consultant Peter Senge in his book *The Fifth Discipline: The Art and Practice of Learning Organizations*. The variety of approaches to collective intelligence are explored in books like *Collective Intelligence: Creating a Prosperous World at Peace*, edited by Mark Tovey.

Resonant intelligence

Resonant intelligence – also known as *empathic intelligence* – depends on our ability to attune to the vibrant energies, needs, and perspectives of life within and around us. Our intelligence grows stronger or fuller as it resonates with other sources or forms of intelligence and when it deepens in empathic response to others.

As an ancient form of wisdom, resonant intelligence originates in the kinship we share because we are part of the same group or tribe – and, at deeper levels, by being members of humanity as a whole. We also resonate with other mammals and with other members of the vast family of Life.

As resonant intelligence expands beyond normal empathy, it shows up as the resonance we feel with landscapes and sunsets we share because we live together on this home planet. Deeper yet, some people ground themselves in our common ancestry as "stardust" since all atoms heavier than helium – in other words, most of the stuff we and our world are made of – were manufactured in stars and supernovae. Still others see us all as members of an inclusive spiritual family or embodiments of a Supreme Beingness. Such people may experience empathy and resonance everywhere. Others, like nonviolent activists from Gandhi to King, use humanity's resonance with

the visible suffering imposed by injustice to motivate people to support major social change and fight injustice. Resonant intelligence is a tremendous source of innate meaning and of natural caring for any and all life and all of existence.

Transformational teacher Jean Houston says: "Our availability to each other, our ability to dream each other's dreams and experience each other's biographies is part of the interpenetrating wave of the current time... We are being rescaled to planetary proportions, as we become resonant and intimate with our own depth."[72](#)

Universal intelligence

Beyond human intelligence there is a *universal intelligence* that seems to be a property of the universe and of all that is in it and perhaps beyond it as well.

In some sense universal intelligence is primal, and yet modern life can impede our ability to access it. Various practices can help open us up to it and various leading-edge sciences are now studying it as a form of intelligence.

Most clearly we see such intelligence in the patterns and processes of nature. Evolution's eons of trial and error have generated countless wise solutions to many problems, a font of wisdom tapped now by the sciences of biomimicry and ethnopharmacology[73](#). Universal intelligence also manifests as the intrinsic tendency for things to self-organize and co-evolve into ever more complex, intricately interwoven, elegantly functional, and mutually compatible forms. From that perspective, we can see our human intelligence as but one manifestation of that universal dynamic. Our efforts to bring reason, technology, and culture to the challenge of solving sustainability-related problems can be viewed as evolution operating through us to create a more complex and coherently functioning earth-system.

The more we are conscious of this naturalistic form of universal intelligence and turn to it for guidance in our human affairs, the more intelligence and wisdom we will have to work with in our sustainability efforts.

A more spiritual perspective views universal intelligence as the mind, love or will of God or Spirit, or as an accessible field of transcendent insight or realm of higher knowledge that can wisely inform human affairs. More materialist people often complain that such seemingly spiritual sources of guidance can be erroneous, manipulated, or used for harmful ends. However, the same can be said of rational and evidence-based scientific sources of guidance. The co-intelligence perspective suggests that if we seek greater wholeness we need to integrate all sources and varieties of intelligence and use them to enhance, fine-tune and balance each other.

Ultimately, both scientific and spiritual perspectives derive from noticing that there are sources of insight and answers beyond our normal human ways of knowing – certain intelligent patterns in the way the world is organized and/or a larger intelligent reality in and around us – and finding that there is guidance there, as well as a good measure of humility.

It is fascinating that Albert Einstein, the archetypal scientist, pulled all this together elegantly in his *The World As I See It*, saying: "The harmony of natural law...reveals an intelligence of such superiority that, compared with it, all the systematic thinking and acting of human beings is an utterly insignificant reflection." [74](#)

Wisdom

Wisdom – like the words intelligence, art and love – has many definitions. Using the co-intelligence perspective, we think of wisdom as integral intelligence that sees the big picture and the long-term even as it focuses on the essence of matters more immediately at hand. Such wisdom involves seeing beyond immediate appearances and acting with greater understanding to affirm the ongoing life and development of all involved. It implies balance and a certain ability to tolerate and engage creatively with mystery, ambiguity, and change. The expanded perspective that accompanies wisdom fosters wonder, humility, compassion and humor.

Wisdom is often grounded in the practical empathy and insights that arise from awareness of our interconnectedness. All humanity and all life forms share a tremendous amount of common ground, as well as dependence on the conditions and resources we create for each other even when we are not aware we are doing that. From the Golden Rule to systems thinking, all great sources of wisdom acknowledge our interrelationships and interdependence. All the other forms of co-intelligence converge in our capacity for collective wisdom.

Federico Mayor, former Director-General of UNESCO, suggested that "Our greatest need at the present time is perhaps for a global ethic – transcending all other systems of allegiance and belief — rooted in a consciousness of the interrelatedness and sanctity of all life. Such an ethic would temper humanity's acquired knowledge and power with wisdom of the kind found at the heart of the most ancient human traditions and cultures – in Taoism and Zen, in the understandings of the Hopi and the Maya Indians, in the Vedas and the Psalms, in the very origins of human culture itself." [75](#)

Conclusion

Co-intelligence at its best consists of these very special phenomena – multi-modal intelligence, collaborative intelligence, collective intelligence, wisdom, resonant intelligence, and universal intelligence – all mixing and matching in a thousand different ways.

Of course, each of these six manifestations of co-intelligence is itself co-intelligence. At the same time, our understanding of co-intelligence – and its potency – deepens and grows richer the more dimensions of co-intelligence we can bring to any given situation.

As sustainability requires us to maintain a collective *right relationship* with evolving realities of immense potency and complexity, we need more holistic forms of intelligence to track that collective "fit" and to creatively adapt within it if we wish to sustain ourselves and our world. We

need a view of intelligence that has sufficient scope and complexity to help us respond well to the dissonances – the disturbances, challenges, changes, and doubts – generated by the emerging crises of the 21st century and beyond. We need participatory forms of intelligence that make the most of who we all are, individually and together, in touch with the larger unfolding systems and realities in and around us, systems and realities ripe with information and a certain wisdom of their own.

In short, participatory sustainability requires – indeed is almost synonymous with – co-intelligence.

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