

From the 'crisis of perception' to the 'systems view of life'

Daniel Christian Wahl



After initially training as a zoologist and marine biologist at the University of Edinburgh and the University of California (Santa Cruz), I have spent the last 20 years of my life in search of answers to one extremely complex challenge: *How can we create a more sustainable human presence on Earth?*

I still remember the day, in spring 1994, when I realized that the most effective way I could contribute to future generations being able to experience the bliss of swimming with a pod of dolphins in their natural habitat was not by continuing on my path towards becoming a marine mammal biologist, but by working in whatever small way I could to help my own species change its perspective and way of relating to *life as a planetary process*. We are participants in that process and our future depends on it.

I dedicated the past two decades to investigating and learning how to apply 'sustainable solutions'. In the process I spent time as an academic, grassroots activist, business consultant and educator, and worked with public authorities at the local, national and international (United Nations) level. I investigated, advocated and helped to implement sustainable solutions in many areas of human activity like transport, housing, community development, food production, water treatment, sustainable production and consumption, and education.

Luckily everyday there are more sustainable solutions available to us, but applied at an inadequate scale or without paying attention to their systemic context, today's solutions can quickly turn into tomorrow's problems. **Without the cultural ability to see our actions and the changes around us from a systemic perspective, combined with the wisdom to evaluate any proposed solutions in the context of their effects on the health and resilience of life as a whole, even well-meant attempts to create sustainability can have ill-fated results.**

Einstein's widely quoted advice that "we cannot solve our problems with the same thinking we used when we created them" seems more appropriate than ever. **We are dealing with the complexity of a profound societal change and the transition towards diverse regenerative cultures as manifestations of not only a different way of being in the world, but also a different way of seeing the world.**

In a letter to Jan Christiaan Smuts, Einstein congratulated him for publishing *Holism and Evolution* (1926) and suggested that two concepts would shape human thinking in the next millennium, his own concept of 'relativity' and Smuts's 'holism' defined as "the tendency in nature to form wholes that are greater than the sum of the parts through creative evolution" (Smuts, 1927).

Holistic thinking is the new way of thinking needed to (dis)solve the problems created by

reductionist thinking. But we should not over-swing the pendulum and favour holistic thinking in all circumstances over reductionist thinking. We should regard reductionism as a useful method to be applied if and when appropriate and within a whole-systems context that acknowledges the valuable contributions of diverse perspectives, as well as the limits to our knowing. We might prefer definitive answers and solutions, but what if they simply cannot be given?

Are we chasing a mirage of certainty in a profoundly ambiguous and unpredictable world?

Is the best we can ever do to live the questions more deeply?

How will the questions we choose to guide us affect the world we will end up experiencing and co-creating in the process?

In spring 2002 I had the good fortune to meet the physicist Fritjof Capra at Schumacher College. Capra clearly articulated something that I had intuitively known and was trying to understand better. He suggested that the ecological, environmental, social and economic crises we are facing are not separate but interconnected expressions of one single crisis: *a crisis of perception*. He explained how our culturally dominant worldview is informed by outdated scientific theories and a tendency to lose ourselves in the details of the perspective of a single discipline, rather than to see the 'hidden connections' that maintain the long-term viability of life as a whole.

The neo-Darwinist story of individuals and species in fierce competition for limited resources is an inadequate and limited conception of life. Nature sustains life by creating and nurturing communities. In today's leading life sciences, evolution is no longer seen as a struggle for existence but as a collaborative dance and exploration of novelty. Capra pointed out that "sustainability is a dynamic process of co-evolution rather than a static state. Sustainability is a property of an entire web of relationships" (personal comment) rather than a characteristic of a single individual, company, country or species.

The understanding that the common root cause of the multiple crises we are facing is in fact a *crisis of perception* offers us hope that we will be able to respond before it is too late. It suggests that if we were to employ a different way of thinking to the one that got us into this mess in the first place, we might realize how many interconnected problems can be combined in ways that point us towards a series of interconnected opportunities and systemic win-win-win solutions by addressing root-causes rather than symptoms.

Taking a systems view of life is an important step towards addressing the crisis of perception. **Realizing our intimate kinship and communion with the process of life as a whole will trigger a shift in consciousness that will enable us to radically improve the quality of our lives and the health of the ecosystems and planet we inhabit.** It will change the ways we relate to each other and the rest of the natural world and allow for the emergence of health as a systemic property linking human and planetary health.

Individually and collectively we are beginning to learn how to ask better questions as we become aware of interconnections and relationships we have so far failed to pay attention to. The quality of the air we breathe, the quality of the water we drink, the quality of the food we eat, the quality of the clothes we wear, the quality of the houses we live in, the quality of the communities we participate in, the quality of our human relationships, the quality of the

ecosystems we inhabit, the quality of the education we offer to our children — all these qualitative aspects of our lives depend not only on detailed, quantifiable specifics that can be understood within the confines of separate and narrowly defined disciplines.



Image Source

These important qualitative aspects of our lives depend on the complex relationships and networks that connect all these aspects into one dynamically transforming whole. These relationships and networks connect our individual and collective future to the health, resilience and wellbeing of *life as a whole*.

Advances in biology, ecology, neuroscience and complexity theory are now offering us a *systems view of life* (see Capra & Luisi, 2014b), defined in detail over the past decades. Society is beginning to catch up and most of the leading-edge initiatives to promote the transition towards regenerative cultures are informed by this systemic understanding of living systems and our intimate relationship with them. Peter Senge has been an important advocate of the importance of systems thinking for people in business leadership positions:

The innovators creating tomorrow's regenerative economy have all, in their own ways, learned how to *see the larger system* in which they live and work. They look beyond events and superficial fixes to see deeper structures and forces at play, they don't allow boundaries (either organizational or culturally imposed) to limit their thinking, they make strategic choices that take into account natural and social limits, and they work to create self-reinforcing cycles of innovation — change strategies that mimic how growth occurs in the natural world. They have learned to see systems by cultivating an intelligence that we all possess. Human beings are natural systems thinkers, but like any innate capacity, this talent must be understood and cultivated.

Peter Senge (2008: 167)

The systems view understands life as networks of relationships. We can find network patterns at the scale of individual cells, organs, organisms, communities, ecosystems or the biosphere as a whole. The qualitative emergent properties that make life worth living and sustain life as a whole are not located within one or many organisms, they are distributed across all of these scales as systemic properties of a living and transforming whole in which every participant

counts and we *all* co-create the future.

If we aim to sustain humanity's common future, we need to learn how humanity can become a positive live-sustaining influence on ecosystems everywhere and the planet as a whole. This is the essence of creating a sustainable and regenerative human culture. By designing our technological, social and economic solutions around the principles of ecology and biology and informed by a systems view of life, we can transform culture so it becomes a restorative and regenerative force.

The continued emergence of self-reflective consciousness and our subjective and inter-subjective (cultural) experience of being living reflections of life's continuous explorations of novelty depend on maintaining the health and integrity of the biological and ecological basis for our continued evolution.

The 'living systems view' of life is not an objectification of nature and biology as separate from the interior (individual and collective) experience of consciousness, but understands life and consciousness as fundamentally intertwined manifestations of one and the same process.

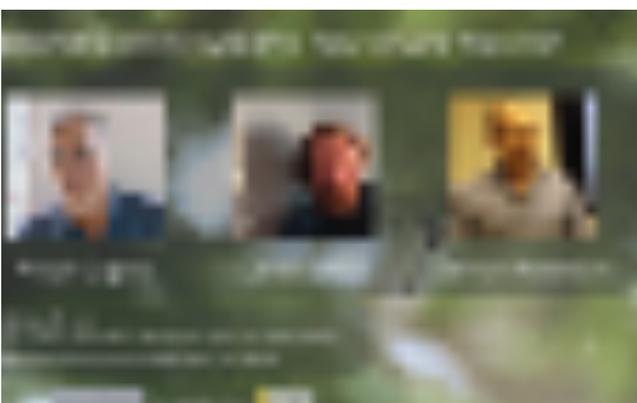
In self-reflective consciousness we are becoming conscious of the role of how-we-experience and what-we-pay-attention-to in the experience itself — paying attention to how we are bringing forth a world together. We are only beginning to understand the co-dependent arising of life and consciousness as a fundamentally participatory process of entering into relationship and taking perspective:

[...] consciousness is so much more than an evolutionary accident or epiphenomenal to biochemical processes in our heads — consciousness is, in fact, *fundamentally woven into the universe itself*. [...] What we *are* saying is that some degree of subjectivity is indeed present all the way up and all the way down the evolutionary ladder, from the tiniest quarks to the biggest brains. This consciousness can be loosely described as a 'perspective-making, perspective-taking' system that creates, collects, and organizes deeper, wider, *more sophisticated* points-of-view as it develops.

Ken Wilber & Allan Combs (2010)

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[This is an excerpt of a subchapter from [Designing Regenerative Cultures](#), published by Triarchy Press, 2016.]



This is a recording of a webinar with Fritjof Capra, Simon Robinson and me about **'Regeneration and the Systems View of Life'**.

| Transformative Change, Sustainability and Regeneration

A free [Webinar](#) offered by [Capra Course](#) and [Gaia Education](#), January, 29th, 2018, 9am California, 3pm Brazil, 6pm CET

Duration: 45–60 Minutes

Fritjof Capra, author of many books, including *The Systems View of Life* (with Pier Luigi Luisi)

Daniel Christian Wahl, author of *Designing Regenerative Cultures*, and

Simon Robinson, co-author of *Holonomics: Business Where People and Planet Matter*

Theme:

More than two years have passed since the launch of the Sustainable Development Goals, and the number of companies reporting against the SDGs is on the rise. The Global Goals, adopted by 190 countries in 2015, provide a global framework and call to action for business, government, and civil society to collaborate on resolving the world's biggest challenges. However, while awareness of the 'UN Agenda 2030' is growing, on-the-ground implementation of the goals by civil society, public authorities and business is lagging behind.

In this webinar, Simon Robinson will talk to Fritjof Capra and Daniel Wahl to explore why many civil society organizations are still critical of the SDGs and how the 'Global Goals' could improve multi-stakeholder collaboration between business, public authorities and civil society at the local and regional scale.

Taking a systemic approach to transformative change, sustainability and regeneration, the webinar will take a starting point with the SDGs and then move on to explore related issues:

- the difference between qualitative and quantitative growth,
- incremental and transformative change,
- potential pitfalls of 'scaling-up' solutions,
- educational approaches preparing people for whole systems design and cross-sectoral collaboration, and
- how everyone has a role in the local, regional, and global transition towards increased sustainability and diverse regenerative cultures.

Here is the link to join the webinar: www.holonomics.org on [Simon's youtube live channel](#).