

SYSTEMS THINKING – SO WHAT? A FIRST PERSON VIEW.

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Abstract

What is ‘systems thinking’? A ‘way of being’. Understanding the world as a complex unfolding divergent process. It contrasts with the mechanistic, reductionist view which sees the world as complicated and convergent. In contrast to the heroic assumptions of the prevailing mechanistic worldview, systems thinking involves inquiry and experiment, holding an open-ness to other perspectives, commitment to actions only so long as they serve and the humility to shift when things no longer serve.

Mechanistic. Complicated. Systemic. Complex. Inquiry.

Is there an easy answer to what arises from having a view of the world which might be called ‘systemic’, or systems thinking? I don’t believe so, but I will try to communicate something of what it means, based on the experience of my attempts to live in this way.

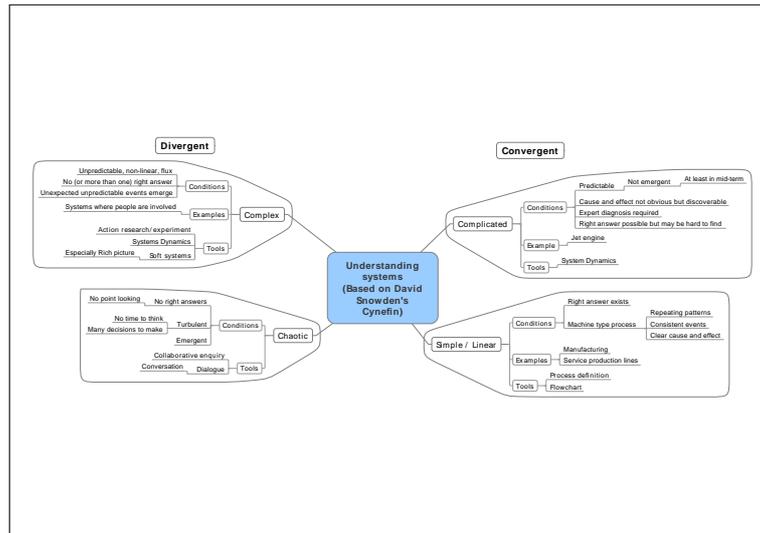
For me, ‘systems thinking’ is a way of being. It involves a way of seeing or interpreting the world through thought and feeling. It is an attitude of open-ness, of inquiry, of looking from many perspectives, inner and outer, of holding, or trying to hold, an awareness of my own beliefs and assumptions, of noticing my reaction to things, of understanding the world as an unfolding process where everything is in relation to everything else. It is an attitude of compassion and love, avoiding judgement, seeking to understand rather than be understood. It is an attitude that is always curious, always ready to learn and amend, realising that to truly know something or somebody, is probably never fully possible, that knowing comes in many forms and is often partial or incomplete, that learning is a subjective process involving a relationship between me and what I am seeking to know, which affects both me and the that which I am trying to understand. It means being prepared to let go of the need to be right, or the fear of uncertainty or the illusion of control.

It contrasts with the mechanistic, reductionist and scientific view of the world, perhaps transcending but still including it (as suggested by Wilber), seeing it as incomplete. Let me immediately say that, despite the negative side-effects which increasingly confront our planet, the mechanistic way thinking continues to be invaluable, producing all manner of benefits as we have revealed more and more of how the world functions. While honouring this way of thinking, I would argue that we often make inappropriate use of the metaphors arising from this mechanistic worldview. We attempt to apply them, for example, in social settings, where complexity and divergence prevail, where properties emerge from a system being greater than the sum of its parts. Many of the analytical tools and techniques of management are rooted in this linear view.

There are of course tools and techniques for systems thinking, but if these are employed while still founded in a mechanistic world-view, they are likely to become more complicated forms of analysis, rather than a means to build a complex emergent picture. A wide range of such systemic tools and techniques are available, as appropriate, to support this underlying way of being. They serve the task in hand.

In relation to these tools and techniques, and how they are used to solve the complex challenges which face us, it seems to me that there are essentially two ends of a spectrum of systems’ thinking. At one end, there are those who accept that the world is, yes, very difficult to make sense of, but is ultimately only ‘complicated’. This means that, with enough analysis, the world can be understood. By reducing the world to its constituent parts, we understand it, even if some of the emergent nature of things disappears as we take them apart. On the basis of this assumption, therefore, most problems are seen as ‘convergent’ in nature, to borrow EF Schumacher’s terminology – they will tend to narrow toward a definable solution if we but work hard enough to find it.

At the other end are those, and I number myself among these, who see the world as too complex to ever fully understand. This is not to say trying to understand it, or even to model it, is not useful. Systems thinking is about transcending the mechanistic, but still including it.



Some kind of picture or story of the world is surely better than none at all, but such analysis will always carry the caveat that a, possibly unrecognised but nonetheless key variable may arise which will fundamentally change the system in ways we have not anticipated. This idea is drawn from complexity theory, which shows that in the longer term (how long is this?), nothing stays the same, everything changes, perhaps with a sudden tip into a new form, even if the present is 'path dependent' or predetermined by its recent history. So we will hold any picture we have formed as 'for the time-being', or 'until such time as we learn something which changes our view'.

In the 'convergent', all-can-be-understood view, heroic activity arises. This means assuming the future can be predicted, making and fixing plans, getting annoyed when the future doesn't conform to plan and believing that 'leadership' is about being the expert, advocating solutions and trying to impose control. The organisation is often likened to a machine, with the leader operating the levers. This form has dominated management, consultancy and much of business thinking, and is still taught to students of business. I would argue that the world is no longer the certain and stable place which engendered many of these normative, simplifying models of management.

In the 'divergent', world-is-an-unfolding-process view, an entirely different mind-set prevails. In the context of organisations or social groups, systemic thinking means working with the emergent, seeing the organisation as if it were a mountain stream, bubbling along as a continuous, self-organising constantly-changing-but-staying-the-same process of unfolding. In this, the keys to understanding and progress are collaborative conversations, an attitude of learning through questioning, and a constant shared awareness, of one's own and others' worldviews. We might still make plans, but these will always be understood as tentative. Emergent change will be welcomed and the organisation will have processes in place to respond to such change. The attitude will be one of inquiry and experiment, of moving to next base and then reviewing. Multiple perspectives will be shared via collaborative approaches, through conversation (as per Stacey) where as many parts of the system as possible are in the same room together. Leaders will be adaptive, facilitating and holding the space for others, with an attitude of humility. They will be servant leaders (as per Greenleaf), the opposite of autocratic.

William Perry is useful here. He writes about stages of learning, a fundamental attitude of being a systemic thinker. The first stage, dependent learning, is about receiving knowledge from the expert (as per much of current school and university learning). The assumption is that a right answer exists, that the expert (CEO?) has this answer, and that learning involves me transferring to myself, from the expert, this certainty about what is. It assumes an objective reality, where my own relationship to what I am trying to know is not really material.

Perry's next stage involves the realisation that teacher or parent or expert or boss, are not always right, that there may be many answers. Perry calls this stage Multiplicity and, as awareness of plurality develops, Contextual Relativism. Now the world is uncertain, with plural possible answers and ways of seeing – a systemic view, rooted in relationship and context. This is a confusing place to be, even if it represents a more comprehensive view of the world and its inter-dependent relationships. This is a place where many who are first introduced to systems thinking find life too uncomfortable and wish to retreat to the certainties of dualism and expert-led knowledge, even if they recognise the limitations of this. But now another important change occurs – my own relationship to what I know or am trying to understand comes into play. Chris Argyris calls this Double Loop Learning, where I am able to stand aside from my process of understanding to question my worldview and its influence on how I see things. Now I am open, ready to re-interpret, curious, looking for relationship, open to what is emerging, seeing that there is self-organisation, that there is constant change and yet things stay the same. My view becomes less heroic. I am on shifting uncertain ground, where the discomfort of this uncertainty is to be embraced as a source of creative tension rather than to be avoided.

Perry describes the way out of the maze of multiplicity. His final stage he calls 'commitment with relativism'. By this I understand that, to make sense of how I act in the complex world, I must choose for myself a way of being, a world-view comprising a set of assumptions and beliefs on which I will base my actions. Having chosen this, I will make a commitment to acting on these. Of course, when I was a dependent dualistic thinker, I also had such a set of assumptions and beliefs, but now I rest on these with an essential difference. Now, I have, or am trying to hold, an awareness of this worldview and of its influence on how I interpret what I am trying to understand. I am more aware of the different perspectives of others (Churchman said – "Systems thinking begins when first we see the world through the eyes of another"). But I remain committed to this 'way of being' only for so long as it serves me. By adopting an attitude of awareness, of noticing and inquiring (as so clearly set out by Judi Marshall in *Living Life as Inquiry*) I am open to amending my assumptions and beliefs and therefore my worldview. I am, at least when I remember, living systemically.

From this systemic way of being, everything else flows. I can interpret the world, as Dave Snowden suggests, sometimes as simple (mechanistic and linear), sometimes as complicated (but still essentially predictable, however complicated it may be), sometimes as complex (where the unexpected emerges, often as a result of human behaviour) and sometimes even as chaotic and unknowable. In each case I can make use of different tools of interpretation, from the hard and analytical to the soft and fluid. I can appreciate different perspectives and the influence of power. I can think and feel the world as a continuously responding process, a set of ideas which exist only in a mutually influencing relationship to each other and to me, as per Bateson, which unfold, as Stacey suggests, through conversation or perhaps dialogue, as per Bohm, where the ultimate boundary of this system as a whole invites some spiritual engagement with the mystery and wonder of it all, especially where it emerges as beauty, where this boundary is the beginning of a relationship with what might lie beyond. It fills me, a tiny arc in the whole mind (to borrow from Bateson again), with an overwhelming desire to act appropriately, so as to sustain the integrity of the whole system.

And I can rely on more subjective, more 'first person' ways of knowing. Of course I can still take stuff from experts, but I now do this in the context of my own way of being. I can also rely more confidently on ways of knowing which are not openly accepted as valid in our scientific world – intuition, experience, knowing through enacting or being (Heron), because I have a way of testing with myself whether these are valid, useful or reliable.

Systems thinking - so what? Have I answered the question? If I try for further explanation, I run the risk of thinking I can answer the question for you. Perhaps the answer you seek may begin to emerge from what I have written, perhaps it won't. In this uncertainty lies the joy of systems thinking. There are still areas where I feel deeply uncertain. One in particular is around issues of power. How do you truly emancipate the participation of those who have little voice or power, especially where such emancipation may threaten those who do have power? What, indeed, is power – how does it

work, emotionally, I mean? Another is dealing with the tensions, inconsistencies and paradoxes which can arise. Now I know for certain how little I know for certain.

By way of footnote, perhaps an illustration from my own experience will shed some further light. For many years I made my living helping organisations improve their processes. My core tool was the detailed definition of the process in question, often in the form of a flowchart or process model. While I often cautioned that improving a single process was like extracting one strand of spaghetti, amending it, and then trying to push it back into the pile on the plate, I rarely truly followed up on that reservation. I recognise now that this approach was about making issues convergent, solvable, even where the complexity of the situation called for more divergent consideration.

Having understood something of systems thinking, especially the shift away from machine-based metaphors which underpin process mapping, I am now much more interested in a more divergent approach, looking toward how things might be, rather than trying to analyse how they were or are. This often means stepping into the future to define, in the present tense, the aspiration, the possible solution. Then, from the 'reality' of that future base, working out how we got here, using the past tense. This 'back-casting' approach (as per Fritz) usually results, I'm not sure why, in the creation of a wider, richer (as Checkland would say) picture, the weaving of a deeper narrative which has many more strands than process analysis seems to produce. (That said, careful use of process maps may still be useful when we really are dealing with linear processes). We can work with the same set of stakeholders, or, if possible, a wider group, but, instead of looking to convergent approaches of modelling and analysis, I encourage a collaborative approach which allows for divergent views to be expressed so that a shared way forward unfolds through conversation and reflection. There remains the issue of how to emancipate the powerless. Based on cycles of action and reflection, as suggested by action research (see Reason), the group moves toward a solution experimentally, welcoming emergent change, holding lightly to the for-the-time-being plan, on the basis that we are unrolling a carpet into the future, not performing to a pre-set script rooted in hindsight. We are inquiring, not advocating, acting with an awareness of feelings as well as thoughts, embracing emergence, comfortable with uncertainty in a world of 'both and', rather than 'either or'. In the context of the uncertainty that faces the planet and everything within it, this humbler, more tentative approach feels to me more appropriate than my previous efficient, superficially more certain, but ultimately less effective, ways of working.

As a further example, an inner-city group of organisations were funded to work in partnership, taking a 'whole system' approach to assist individuals facing multiple disadvantage. The group came together to develop a 'systems map'. With a mechanistic/reductionist mindset, they believed this would show where the problems lay and point them to a solution. The opposite occurred. The map demonstrated the complexity and inter-relatedness of issues with no single cause and no pointers toward solutions.

Recognising there was no easy 'fix', the group decided to receive training in systems thinking and to adopt an experimental and inquiring approach. This involved breaking free of the existing 'rules of the game', giving workers permission to try out ideas without fear of reprisal. Learning was shared. To reduce risk related to subjective decision making, workers would come together in threes to 'triangulate' their subjective views, assisting each other to see other perspectives.

The partnership has kept records of changes they consider to be 'systemic'. Individuals experiencing multiple disadvantage report significant improvement in their experience of accessing services.

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