

Comparison of classic/ scientific and dynamic/non-linear change methods

Note that the contents of this paper are in note form.

Taylorism / scientific management

Newtonian framework affects much thinking about change

- the world as a machine – the ‘clockwork universe’ – independent objects that follow universal laws
- a linear world – constant reaction to interventions – repeatability – scientific method
- important – cut through medieval fatalism – put humanity in the position of knowing actors – allows a sense of control over reality

Scientific change methods (aka Taylorism or Fordism) (“The Principles of Scientific Management”, by Frederick Winslow Taylor, 1911)

- good analysis of current situation / trends (e.g. SWOT / PEST analyses)
- find appropriate technical knowledge (consultants)
- good design gives you the basis for change that you can predict into the medium-term future

Strong sense of linearity / close link between cause and effect

Planned change – build a good argument based on above analysis; bring organisational ‘force’ (resources, power, argument, clear planning) to carry change through; build support / critical mass for your change project; if you encounter resistance, think how you will overcome it.

Uses language of engineering, of forces, momentum, direction.

“Set goals and objectives and go for them. Organise rationally, efficiently and clearly. Specify every detail, so that everyone will be sure of the jobs they have to perform. Plan, organise and control, control, control” (Gareth Morgan, “Images of Organisation”)

Metaphor of a supertanker - decide where you want to go, do your navigational calculations, set your course (with mid-course corrections if necessary). Most important thing is to set the course – after that, the person at the helm simply makes sure the course is followed.

But certain assumptions built into this model / metaphor

- assumes we have a good enough map of the future terrain to plot the course accurately
- assumes the map won’t change under our feet while we are on the journey
- assumes the goals will still be relevant and appropriate when we get there 2 years later
- assumes we have the force / weight to steer a straight line through rough seas

Overly reductionist, unable to deal with the messiness and disorder of living human systems. Often gives ‘management’ a bad name in Christian organisations

Criticisms of this approach led to various attempts to improve on it:

- the *human resources* movement emerged from work done by psychologists in the USA in the 1920s. It views workers in terms of their psychology and their fit with companies, rather than as interchangeable parts. As the movement grew during the 20th century, it placed emphasis on leadership, cohesion and loyalty as key ingredients in organisational success. It also led to an emphasis on *participatory management*
- *participatory management* approaches encourage all staff to voice opinions about working conditions and plans. Most recently it has been associated with ideas about

organisational learning and *appreciative enquiry* (emphasises on what an organisation is doing right and how to build on it, rather than fixing the things that are not working well).

Systems theory / non-linear change

Dynamic, complex systems are less like a machine and more like a river:

“You cannot step into the same river twice, for other waters are continually flowing on Everything flows and nothing abides; everything gives way and nothing stays fixed” (Heraclitus, c.500BC)

Continuous flow of interchange and relationship – flow constantly changes in small ways, with occasional major / catastrophic changes (floods) but the broad overall direction persists.

Reality is shaped not by structures by process, systems and relationships - an organogram does not show the real power hierarchy in an organisation (long-standing members of staff / old church families / charismatic influencers)

Challenges the Newtonian idea of free-standing, atomised, independent objects. We live in an interconnected, interdependent world, where things acquire their identity by being in relationship with others (e.g. husband, father, friend, son, brother). Should be no surprise that creation mirrors the interdependent relationships with the Trinity itself – the Father does not exist apart from the Son, etc)

Not just relationships but also non-linearity : cause -> effect does not always work

- repeated inputs into a non-linear, dynamic, complex system may not get the same outcome every time
- not always easy to predict what response a given input might get
- depends on the state of the system at that time

Contrast between kicking a stone and kicking a dog (in the latter case, the second kick is a different event to the first one)

Dynamic systems respond paradoxically to change

- small input can lead to a big response (butterfly theory)
- dynamic systems are self-regulating and resilient and can absorb change – which is why many change initiatives fail – people learn to work around them and carry on as normal (cf cognitive psychology – people fit new knowledge into existing knowledge frameworks)
- however the system can ‘crash’ into new behaviours unexpectedly (chaos theory calls it a bifurcation point; Gladwell calls it a tipping point) – e.g. stock market bubbles and crashes.

Makes change much harder to predict, plan, manage and achieve, with unforeseen outcomes of your actions.

Emergent change, not planned change (i.e. new patterns of behaviour that cannot be controlled, predicted or managed)

Work with the dynamics of the system, rather than using force to overcome it (cf Brian Arthur; “you’re not the captain of a steamboat; you’re the captain of a paper boat – go with the flow, occasionally stick an oar in the river and punt yourself from one eddy to another. This is not a recipe for passivity or fatalism. Observe, observe, observe, pick your timing well, and act courageously”).

“A talent for speaking differently, rather than for arguing well, is the chief instrument of cultural change” (Richard Rorty); “redescribing lots of things in new ways until you have created a new pattern of linguistic behaviour which tempts a rising generation to adopt it”

- cf chaos theory's “strange attractors”
- my experience with Global Connections (ST CBP) and with my first book, “Postmission”; doing the same now with regard to the history and future of my organisation (2003's “Crisis”)
- “create a narrative for people to fit their story into”

Key metaphors - not a supertanker but a flotilla - kicking dogs, not kicking stones

Coordination not through command and control but through shared values, common ways of viewing the world, how we live out our principles.

Summary

Overall, different challenges require different paradigms. Sometimes the change needed will be fairly straightforward and controllable; sometimes you need to try to analyse a situation to identify things that need to be ‘fixed’, in which case the classical / Newtonian / scientific change methods can be appropriate and useful.

Human Resources and Participatory approaches try to neutralise the top-down / centralising tendencies of scientific management approaches

Non-linear / dynamic systems approaches draw on insights into how dynamic, changing, complex systems (such as all those inhabited by human beings) work.