

Systems Theory – Flock of starlings

We live in increasingly complex societies with correspondingly increasingly complex organisations. Traditionally, the dominant organisational model for society has been based on the cause and effect and reductionist approach of Newtonian physics.

As our society has grown more complex, there has been a growing realisation that such an approach is very limited.

Most of our organisations are reductionist and hierarchical in nature based on an assembly line approach. This approach functions with a leader or manager telling other people what they have to do. In business, this would equate to the CEO of a large multinational having control over the whole organisation through a pyramid of line management and the concept of the 'buck' stopping with him or her.

Increasingly, this approach is being seen as inappropriate and incapable of dealing with highly complex organisation. Many large businesses are therefore trying to move to a flatter management style and give more responsibility to staff at lower levels in the organisation.

Analysis of nature reveals that here complexity is dealt with in a very different way. Most of us have sometimes looked and wondered at how a huge flock of starlings can fly in such a coordinated and organised way. Not only can they fly to a specific destinations, they can also respond to changes in wind speed, threats from predators and a whole range of other changing variables. Traditionally we have assumed that the birds somehow following the directions of a leader bird. In reality there is no leader, the birds actually rely on self-organisation. Effectively they have a few simple rules that they each use to control which way they fly relative to their neighbours. These simple rules control how the flock as a whole flies. This type of control system means that more and more birds can join the flock without control breaking down, as it would with a hierarchy. Indeed, not only does the flock continue to function, increasing size actually means it gets more effective in terms of reduction of flying effort, protection from predators and other threats. Thus each bird in the flock benefits from the growth of the flock and a virtuous circle is created.

In living organisms, such an approach is found to be how nearly all-natural systems from the human body to ecosystems actually work. A few simple rules are put in place and these then guide the behaviour of the system. Such rules have to evolve so that they benefit the whole.

We believe that if correctly developed with the correct rules, social franchising puts into practice the lessons we can learn from nature. This enables us to create complex and effective enterprises that, like the flock of birds, are not limited in size by organisational constraints and actually become more effective, not less as usually happens in hierarchical structures, as they grow.