Abstract

The well-known Group Dynamics model describes the interpersonal dynamics of work-teams as they move through successive stages of a project. The five phases in this model - Forming, Storming, Norming, Performing and Adjourning - also map exactly to the five ‘elements’ of traditional Chinese medicine and feng shui - Wood, Fire, Earth, Metal, Water. Unlike the Group Dynamics model, which shows a single cycle of relationships, the Chinese model maps bidirectional relationships between every phase. By extending Group Dynamics with Chinese five-element theory, we arrive at a much richer model which describes both cyclical and continuous work-processes, and both explains and suggests remedies for the inherent conflicts between individuals or work-teams whose work is focused on different phases of the work-cycle.

The simplicity of the model makes it easy for individuals to see their connection to the whole of the enterprise, and reduces conflict by showing that many clashes arise not because others are ‘stupid’ or recalcitrant, but from the differing nature of the work itself. The model also integrates well with knowledge-creation techniques such as TQM and the US Army’s simple yet effective ‘After Action Review’. Examples of the model’s use include a case-study at an engineering research establishment in Melbourne.

Group Dynamics

As organisations become more distributed, and complex relationships such as supply-chains between organisations become the norm, it can become much harder to grasp a sense of the whole of a process or project, let alone of a whole organisation. In our work with organisational development, we’ve created a number of models for this purpose, and of these, one of the most useful, and for many people the easiest to understand, is a simple extension of Bruce Tuckman’s well-known Group Dynamics sequence. 1
Tuckman’s model describes the interpersonal dynamics during the lifetime of a group or project. The five stages in the project lifecycle are assigned the keywords ‘forming’, ‘storming’, ‘norming’, ‘performing’ and ‘adjourning’: 2

- In the forming stage, the group comes together, creating ideas, usually around a given theme or set of requirements.
- After a time, the activity shifts to a storming or discussion phase, in which conflicting ideas - and interpersonal issues such as status and authority - are thrashed out in one form or another.
- This then settles out into the norming or planning phase, in which clear decisions are made about who will do what, and how, and when.
- In the performing or action stage, each member of the group carries out their agreed work.
- And in the final adjourning or completions phase, after the work is complete, but before the group breaks apart back into a pool of individuals, there is a review-process, about the work, the roles of individuals, and of the experience of the group as a group.

This final review stage is often missed and forgotten, but it not only provides a sense of personal closure for those involved, but also essential supporting information and experience for the next new project or new group, coming together in its own ‘forming’ phase, beginning the next cycle.

As this indicates, in addition to describing the interpersonal dynamics, the Group Dynamics model also outlines the creation and flow of knowledge through the overall process. In this it’s much like the Total Quality Management (TQM) four-step sequence of ‘plan/do/check/act’: here it’s not so much an extra node as a slightly different way of partitioning the same activities and processes, with rather more emphasis on the interpersonal issues.

It’s also fractal, or recursive, in that much the same cycle also occurs within each phase. This is especially true for the ‘adjourning’ stage, for which the US Army’s simple After Action Review (AAR) process is particularly appropriate. As a quality-development process which maps closely to the four stages of TQM, the AAR is a knowledge-gathering cycle or sequence of four questions:

- What was supposed to happen?
What actually happened?
What caused the difference?
What can we learn from this? 3

Like the TQM cycle of 'plan/do/check/act', the Group Dynamics cycle is presented as being unidirectional. The information flow and patterns of behaviour-change are deemed to pass from node to node solely in the predefined sequence.

**Five elements**

In its original form, Group Dynamics is useful, but limited in application: it seems only to describe processes within the lifetime of a single project. However, the nodes of its five-step sequence map exactly to those in the five-phase or 'five-element' model used in traditional Chinese medicine. The same five-node model is also central to Chinese astrology, to feng shui and many other aspects of traditional Chinese thought. This opens up a much richer set of possibilities - including better understanding of whole organisations as well as of individual projects. The Chinese 'elements' map to the Group Dynamics nodes as follows:

- the 'element' Wood maps to the 'forming' phase in Group Dynamics;
- Fire to the 'storming' phase;
- Earth to the 'norming' phase;
- Metal (or, in very early versions of the model, Stone) to the 'performing' phase; and
- Water to the 'adjourning' or dissolution phase.

Importantly, unlike the original Group Dynamics model, the Chinese five-element model describes fully bidirectional relationships or flows between each node. These result in four distinct cycles - one, the 'creative/enhancing' cycle, being the same as in Group Dynamics, and the three others known as the 'reductive' cycle, the 'destructive' cycle and the 'dissolving' cycle. 4 Each of the paths in these latter three cycles identifies some kind of inherent conflict or constraint within the overall system, which needs to be addressed in order to maximise the system’s overall effectiveness. In all four cycles, each path provides a succinct metaphor for the respective interaction between nodes - in this context, between work-stages or 'ways of knowing' - and indicates appropriate actions to maintain the balance of the overall system.
In the creative/enhancing cycle, each phase supports and flows naturally to the next:
- Wood provides fuel for the fire;
- Fire provides ash to fertilise the soil;
- Earth produces the forms - the ‘ten thousand things’ - of the mundane world;
- Metal condenses vapour to water; and
- Water feeds wood, to start the cycle once more.

The reductive cycle flows between successive nodes in the opposite direction to the creative/enhancing one, suppressing the activity of the previous phase in the sequence:
- Wood dams or reduces the flow of water;
- Water weakens or rusts metal;
- Metal digs, moves and reshapes the soil;
- Earth suppresses fire, reducing it to a smoulder; and
- Fire reduces wood to charcoal.
The destructive cycle flows in the same direction as the creative/enhancing one, but to one node further round in each case. The conflict is more severe here than the reductive cycle, in that rather than reducing the activity of the next phase, it can destroy the activity outright:

- Wood breaks up the soil;
- Earth blocks the flow of water;
- Water puts out fire;
- Fire melts metal; and
- Metal chops down wood.

Finally, the dissolving cycle flows in the opposite direction to the destructive one, again skipping alternate nodes. In this cycle the conflict is more gentle, though no less real:

- Wood splits and fractures metal - this is more obvious with the old attribution of the node as Stone rather than Metal;
- Metal disperses the heat of fire;
- Fire vaporises water;
- Water softens the soil; and
- Earth rots wood.

The node we move to from the starting point at Wood determines which of these cycles will occur.

For example, if we try to skip the storming/Fire stage as being too difficult, starting by moving from Wood to Earth, we move straight into the worst cycle of the set, the destructive cycle. Lack of clarity and unresolved interpersonal issues fragment the goal-setting process at norming/Earth. The resultant uncertainty leads to both too much and too little detail, at adjourning/Water. This then leads to loss of enthusiasm for the project, at storming/Fire. Resentment and backbiting cripple the production phase at performing/Metal. And the sense of failure tends to chop down any new ideas on the return to forming/Wood.
If instead we jump straight from Wood to performing/Metal, trying to put new ideas straight into production, we end up following the dissolving cycle. This can be seen in practice in almost every organisation!

And if we go first from Wood to adjourning/Water, trying to pin down every detail into absolute requirements-specifications, we end up in the reductive cycle, with frustrations and limitations every step of the way. We’ll see this one often in the computer trade, for example, and in many outsourcing contexts.

So the only truly productive cycle is the creative/enhancing one - Wood to Fire to Earth to Metal to Water - exactly as indicated by the Group Dynamics process.

Leadership and unity

The creative/enhancing cycle also confirms that there is no one best type of leader for all circumstances. The skills required at each stage of a project are so different that they are most unlikely to all occur in any one person. Looking closer, it becomes clear that the best type of leader for each phase is one who combines the characteristics of that phase with those of the next in the creative/enhancing cycle - their own style literally leading from one stage to the next:

- The forming stage of a project needs someone with the ideas and imagination of Wood and the energy and excitement of Fire.
- The leader for the storming phase needs both the energy of Fire and the calm awareness of purpose that typifies Earth.
- The role for the leader at the norming phase is goal-setting, combining both Earth and the ‘just do it!’ style of Metal.
- In the production or performing phase we need Metal's clear structure and tightly-defined roles, combined with an attention to detail that is more typical of Water.
- In the final adjourning phase we need a leader who can guide the use of knowledge-gathering tools such as the After Action Review, to translate practical experience back into shared knowledge and shared learning for the Wood of the next project or cycle.

And much the same also applies within whole organisations, where the different phases are handled not sequentially as in a project, but simultaneously by different groups or departments. For example:

- research and development is forming/Wood;
- human resources is storming/Fire;
- planning and scheduling is norming/Earth;
- production - or sales, in a retail organisation - is performing/Metal; and
- completions-work - such as accounts and quality-assurance - is adjourning/Water.

Different types of people, and different types of leaders, gravitate naturally to the functional area whose phase within the overall work most matches their own characteristics. We'll see the same point echoed by personality-type assessment tools such as Myers-Briggs: the same MBTI types tend to cluster in particular parts of an organisation. The result, though, is that without an awareness of the whole,
work-areas within an organisation tend to develop an assumption that their view of the organisation is the 'right' view, the only possible view, and to assume also that their own work must be regarded as the organisation’s highest priority. This is a common source of organisational problems and organisational politics: as the eighteenth-century writer Dr Johnson once commented, “they can never agree, for they are arguing from different premises!”

The five-element model provides an easily-understood view of the whole, rather than only of the parts; and we can use the bidirectional paths in the model to warn us of probable clashes between areas, and also, by metaphor, the nature of those clashes. We can see that every phase is both essential, and transitory - including the storming/Fire stage that so many managers try to suppress! Perhaps more important for relationships between people and between departments, the paths in the model indicate that some clashes are inherent in the nature of the work, rather than solely due to interpersonal conflicts - and can also show ways to resolve those clashes.

Practical applications

This point was illustrated well in one of our projects, at a Defence research establishment. To protect the team’s skills and experience, a group of investigating engineers had been brought into the civilian establishment from within a Forces unit. But although it had seemed an ‘obvious’ move - after all, both groups were highly trained professionals working in the same technical field - there were almost immediate tensions between the establishment’s research scientists and the engineers, especially from the latter to the former. “We get a report out in three days”, said the engineering manager; “that lot over there take three years!”

Yet from the model’s perspective, the clash was all but inevitable. The engineers’ production-oriented environment was typical Metal: within that specific mode, unpredictability is anathema, and hence needs to chop down the scientists’ Wood. And in turn, Wood fractures Metal: the scientists’ constant new ideas and experiments played havoc with the engineers’ investigation schedules. We resolved the clash by paying more attention to Fire, to Earth and to Water: in other words, by creating systematic dialogue between the two groups, to manage the inevitable ‘storming’; by constructing a more visible scheduling system; and by developing codified record-structures and after-investigation reviews - similar to AARs - so that the engineers’ results provided more support for the scientists’ work.

In a similar vein, many manufacturing organisations have an excessive focus on production, sometimes to the exclusion of almost everything else. The model indicates the inevitable result: excess Metal leads to excess Water - and hence new ideas drowned, goals muddied, the organisation’s energy and fire put out. We can resolve this by ensuring that the overall flow travels smoothly round the creative/enhancing cycle: in this case, we keep the Water flowing by ensuring that the follow-up to production (quality assurance, sales, accounts and so on) feeds innovation and new customers alike - as in functional TQM - rather than drowning everyone in paperwork and the dreaded ‘ISO-9000 paper-trail’ of policies and procedures.

The key to all of this is balance. The five-phase, four-cycle model provides a means by which everyone within a project or organisation can understand their roles within the whole, and to see the probable effects of their own actions on the behaviour of the overall system. With a system-wide view, over project lifetime and across
organisational functions, the ‘hot-spots’ and potential blockages can be identified and resolved. The result is increasing organisational effectiveness and increased organisational learning - and a better working environment for all.

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1 See, for example, the summary “5 Stages of Group Development” at http://www.gmu.edu/student/csl/5stages.html (George Mason University Center for Service and Leadership) [accessed 8-Mar-02]. The original source cited is Tuckman, B. & Jensen, M. (1977) Stages of Small Group Development. Group and Organizational Studies, 2, 419-427.

2 Tuckman’s original term for the final stage, as shown on the George Mason University site, was ‘adjourning’; however, the term ‘mourning’ is now also commonly used - perhaps because it rhymes better than the original!

3 See Chris Collison and Geoff Parcell, “Learning To Fly” (Capstone, 2001), on the application of After Action Reviews to knowledge-management in the oil-multinational BP; the AAR methodology is summarised on p.152.