

Chapter 31

The Yin and Yang of Change: Systemic Efficacy in Change Management

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Abstract Efficacy in change management is an issue. Western change management approaches are well elaborated in the mechanics of change. A broader perspective on efficiency and effectiveness is rare. The “Yin and Yang of Change” brings together systemic approaches and Chinese philosophy to draft a broader perspective on efficacy, sustainability and viability of change processes. The research on systemic efficacy in change management starts with the five Tai phases leading to Tai Chi and the model of Yin and Yang. The systemic counterbalance focuses on distinction theory in reference to George Spencer-Brown’s *Laws of Form* and Niklas Luhmann’s *Theory of Social Systems* (TSS). As a first result we can distinguish between:

- Yin-Change: cold change, continuous improvement, integration
- Yang-Change: hot change, innovation, transformation

Change management, as a conclusion to this first finding, needs to distinguish and to balance the two sides of change, innovation and continuous improvement, to realise efficacy, viability and sustainability.

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31.1 Sustainability in Change Management

31.1.1 *The Management of Change*

Efficacy in change management is an issue. Western change management approaches are well elaborated in the mechanics of change (Kotter 1996; Holman et al. 2007). A broader perspective on efficiency and effectiveness is rare. Change management is usually offered and contracted as a service which is rather determined by the selected toolkit than by a broader consideration of effects and implications. Goals are difficult to define and results are hard to measure. The linear perspective of scientific management is still the dominant paradigm. Systemic perspectives are hardly found. Yet they offer valuable insights.

Systemically there are two crucial aspects to consider for the management of change. First is to acknowledge that change is the distinction of an observer. Development of social systems is continuous. To stay the same systems have to renew themselves. It is the observer who cuts into this continuum to address a specific section in the systems development to focus attention and resources to direct the development into a specific direction. Change as we know it is an active decision.

Second is the systems autonomy and idiosyncrasies. This is where aiming at best practice approaches fails. Change transfers one systemic practice to another systemic practice. And every systemic practice comes with its own specific possibilities. A possibility is as much an idiosyncratic feature of a system as its practice. Accordingly a next practice approach acknowledges a systems sense of its own possibilities – like in Robert Musil's *Man without Qualities* – based on the distinction between a sense for reality and a sense for possibilities. Systemically change is successful, when it bears sufficient complexity to fit to the system's possibilities in terms of the desired outcomes and in terms of the change process itself. Our research and findings are based on this hypothesis. Successful – effective, viable and sustainable – change depends on the requisite variety of the concept of change which qualifies the achievable outcomes and specifies the qualities of the change process as such.

31.1.2 *Continuous Improvement and Innovation*

Looking at successful management of change we see two prominent approaches in the last three decades: continuous improvement and innovation. Very much under Japanese influence the 1980s saw the rise of total quality management. A rich tool kit gave structure and substance to the notion of continuous improvement. The consequences especially for Japanese manufacture are well-known (Ishikawa 1981; Deming 1986). The 1990s saw further development of the idea of continued improvement in the philosophy and the tool set of Six-Sigma (Harry 1988). General

Electric had been one of the prominent promoters in the US. And it had been General Electric being one of the leaders of their industry to discover the diminishing returns of continuous improvement. The answer, almost as a systemic imperative, is innovation. Companies like IDEO engaged in the idea that innovation is strongly related to creativity and channelled this towards an approach labelled as design thinking (Jones 2008; Brown 2009; Martin 2009; Lockwood 2010). Prominent tools of design thinking like for example rapid prototyping ventured to inverse the classic western approach of planning followed by implementation and put the action first. Action followed by reflexion allows for a learning cycle which promises to be more effective than the approach of the classic western strategy. We may want to call this cycle *reflection-in-action*.

31.1.3 *Strategy and Efficacy*

There has always been a contrast of a western and eastern philosophy when it came down to strategy. For the western classic strategy thinking von Clausewitz (1832–1834) is prominently referenced. His works *On War* engaged in the technical idea of planning and implementation. It is no wonder that his ideas could flourish in a historic context of the wide-spread successes of science and engineering. The contrasting eastern philosophy is equally prominently referenced by Sun Zi's *Art of War* (ca. 500 B.C.). At the very heart of his works we find the 36 strategies which do not refer to clockwork mechanics. They are rather illustrations for behavioural opportunities in complex contexts (Sun Zi 1999).

François Jullien (1996) focused on efficacy as the relevant notion behind strategy concerns. In reference to eastern philosophy he brought forward the notion that efficacy is all about improving the potential of the situation and seizing the advantageous moment. The aim of the following shall be to bring forward an idea of increasing the efficacy of change by changing the change and composing new possibilities of change by engaging in the notion of Yin and Yang on the one hand and the calculation of form on the other hand. It is the idea to use eastern philosophy as in the *I Ching* (Cheng 1988) to contrast, balance and enrich this with western distinction theory and qualitative mathematics as in the *Laws of Form* (Spencer-Brown 1969).

31.1.4 *Yin and Yang of Change Management*

Yin and Yang are seen as the two distinct qualities of a system's activities. Yin, in the notion of ancient balance medicine, supports the system of the living body while Yang operates the system of the living body. When Yin is relatively more than Yang, the system becomes hot. And when Yin is relatively less than Yang, the system becomes cold. As it comes to change management the simple idea it is to

align the notion of Yin and Yang with a notion of continuous improvement on the one side and innovation on the other side. This would bring forward the idea that we have a Yin side of change which very much equals continuous improvement. It would be the stiff, hard and cold side of change. It would be an integrating approach of change which would on the long run marginalised the effects. Especially the latter very much relates to the experiences with continuous improvement. Entering the improvement cycle for the second time will yield diminishing returns. Tidying our desks just after you've tidied it is a futile exercise with a marginal benefit. The Yang side of change relates to innovation, this could be seen as the hot side of change. It is volatile, erratic and sometimes over-excited. The dynamics are very much transformative, enlarging the terrain, a dissipative structure. If this approach holds change management is very much about balancing both sides of change, the Yin side and the Yang side, continuous improvement and innovation. And you can easily translate this into the notion that sometimes it is necessary to do what you do in an improved fashion to yield and sometimes it is necessary to do something different, something new to yield. And we can think of an oscillating dynamic between the two sides engaging with something that is new which is improved in the further until it is more profitable to start with something new again.

31.2 Drawing Distinctions

The idea of Yin and Yang of change is certainly very appealing for the issues of efficacy, sustainability and viability of change. Yet before jumping right into the search for practical evidence, we may want to explore a little bit further what it actually is we are looking for and explore a little bit further the complexity that comes with the combination of Tai Chi and the calculation of form, of eastern philosophy and western qualitative mathematics.

31.2.1 *The First Distinction*

Exploring the philosophical implications of George Spencer-Brown's *Laws of Form* (1969) will guide to the constructivists' idea of creating world out of drawing a distinction. This very much is a notion of Gregory Bateson's (1972) idea of information. Information is a difference that makes a difference. Drawing a distinction provides a difference which allows us to make a difference. George Spencer-Brown ventured in his *Laws of Form* the idea to reduce the Boolean algebra to just one operator. He called the operator a marker (Fig. 31.1) consisting of a vertical line marking the distinction and a horizontal line, starting at the very top of the first marker towards the left, attributing value to one of the two sides which come into existence through the distinction. We could call this the primary distinction which, as an operation, creates world as the asymmetry of a marked state

Fig. 31.1 The marker

on the inside and an unmarked state on the outside. So it is the distinction between world and not-world, between awareness and non-awareness. While the marked state can be named, the unmarked state remains without name. Thus only the marked state can enter and be processed in communication. What cannot be named is not. Drawing a distinction and naming the marked state creates world, its substance, colour and richness.

The idea of creating a world based on drawing a distinction resonates very much to the idea of Tai Chi. In eastern philosophy the birth of the world is described as the sequence from Wu Chi to Tai Chi. The Wu Chi state, the not even nothingness, resembles very much the truly unmarked state, the so to speak not even un-marked state. In this sense the birth of the world can be seen as the becoming of the world by drawing distinctions, by marking and establishing the world by naming.

1. Wu Chi: boundless, the primordial universe, unsupported not even nothingness
2. Tai Yi: vanity, non-entity
3. Tai Chu: with flow of energy
4. Tai Shi: with shape, without substance
5. Tai Su: with shape and substance without form
6. Tai Chi: super ultimate, the cosmic first principle

The Tai Chi, the primary distinction, allows distinguishing between two sides, a Yin side and a Yang side. The idea is to distinguish the two contrasting dynamics of one subject. For example referring to a weather system we would have a Yin component which is the landscape (matter) of the region which supports the weather. Yang is the energy stored in or being pumped into the region which operates the system. When Yin is more than Yang, the weather is dark and cold. And when Yin is less than Yang, the weather is sunny and warm. In reference to human reproduction system, we could have a Yin side which is feminine supporting the system and a Yang side which is masculine operating the system. So in terms of the laws of form Yin and Yang are not primary distinctions. Both of them are marked states and the distinction of two marked states always requires what Matthias Varga von Kibet (1993) would refer to as the dotted marker. A marker which distinguishes these two marked states from the rest of whatever is, could be, or is not.

In reference to Niklas Luhmann (1984) we could call this the unity of the distinction. Tai Chi is the unity of the distinction of Yin and Yang (Fig. 31.2). In distinction theory we have to carefully note that as soon as we enter the realms of naming and semantics, the word functions as a token, indicating the value and the prior distinction (Spencer-Brown 1969). If we name both states, the marked state and the unmarked state, we actually deal with two marked states which indicate the distinction which gives unity to them and distinguishes them from the rest of whatever is, could be, or is not (Klein 2002).

Fig. 31.2 The unity of the distinction of Yin and Yang

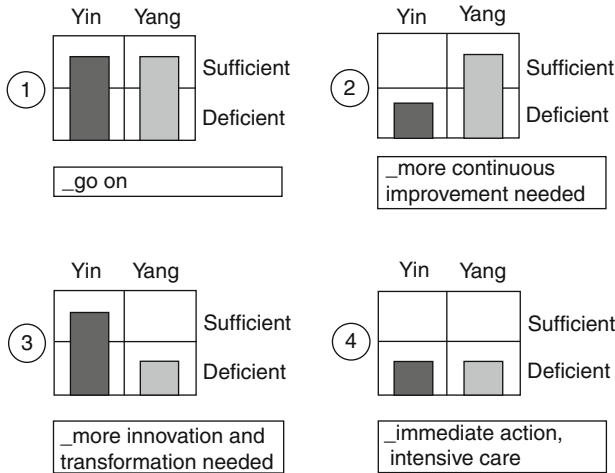


Fig. 31.3 The four field matrix of Yin and Yang, sufficient and deficient

31.2.2 The Second Distinction

The first distinction allows the naming of two states. If we add a second distinction this would allow four states or four directions like north, south, east and west. If we refer to traditional Chinese medicine we learn that the second distinction reads as deficient and sufficient (Wong/Pavlika 2007). If you would engage in a four field matrix of Yin and Yang, sufficient and deficient, we could distinguish four situations (Fig. 31.3). The first situation would be a situation of sufficient Yin and Yang. This is the healthy state; there are enough of both energies to maintain a healthy viable organism. The second situation may be characterised by deficient Yin and sufficient Yang. This would read as a tendency to the hot Yang side. The therapy would be to improve the cold Yin side, i.e. nurturing instead of burning. Or in our change analogy more continuous improvement is needed in the system. The third situation is characterised by sufficient Yin and deficient Yang. The system is getting stiff and cold. The warm and hot side need to be enforced. More innovation and transformation is needed. Finally there is a fourth situation characterised by a deficient Yin and deficient Yang. Immediate action and intensive care are required. A system in situation four is not viable. There is a lack of both energies.

So when it comes to change management we are looking to support deficiencies towards a state of sufficient Yin and Yang, towards a state where continuous improvement and innovation are well applied. This promotes viability and sustainability. And we should beware of a situation of the system where we do see little or no change. A system needs to change continuously to remain healthy, viable and sustainable. In practice, we have to diagnose a company by observing its behaviour, determining the state of the company in terms of cold, hot, deficient, and sufficient. Then we need to formulate strategies to maintain the company's Yin and Yang levels remaining within the sufficient regions, and continuously iterating the whole process. A good illustration for a Yang deficiency could be seen in the companies which engaged in the Six Sigma approach. This was Yin based, cold change. After a few iterations the effect was marginal. The swing of the pendulum afterwards went to the Yang side fuelling the innovation hype. Another example for a Yin and Yang deficiency is any depression caused by the lack of investment. If a company neither invests in innovation nor in continuous improvement it is eating up its substance and eventually cease to maintain its further existence.

As for change management it becomes evident that the distinction of Yin and Yang combined with the sufficient deficient distinction allows for a better foundation of a change strategy: stress innovation, stress improvement or intensive care stressing both.

31.2.3 The Third Distinction

With the third distinction we are looking at a dynamic notion beyond more, less and plenty, empty towards a notion of growing and shrinking. Referring to Spencer-Brown's marker it is possible to recompose arrangements which apply the same distinction or same mark over and over again. This is based on the figure of the re-entry (Fig. 31.4) which is applying the distinction upon the distinction. A good illustration for the re-entry figure is in the academic world referring to empirical research as the re-entry of the distinction of theory and practice on the side of the theory.

By entering the marked state and re-enter the very operation of applying the same distinction again and attributing a value, we can think of a primary distinction of Tai Chi producing Yin and Yang being applied to either sides in a second distinction and if we want in a third distinction. The third distinction would lead to the eight trigrams of the Bā Guà (Table. 31.1).

Philosophically it is important to accept that we are looking at one and the same distinction. We may want to venture the purity of Spencer-Brown's marker to grasp that, although we have a variety of words to describe the different marked states, the Tai Chi remains the same. The complexity is with the re-entry, not with the distinction. With the eight trigrams of the Bā Guà we generate complexity upon the re-entry and attribute meaning. And again it is important to note that meaning is social construct, which needs to prove viable over time (Wittgenstein 1953; Foucault

Fig. 31.4 The second distinction is the re-entry of the first distinction in itself.

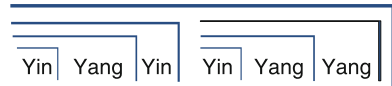


Table. 31.1 Bā Guà – The eight trigrams

Ba Gua		Distinction	Character	Meaning
	Qián	Yang Yang Yang	乾	Expansive energy, the sky
	Duì	Yin Yang Yang	兌	Joy, satisfaction, stagnation
	Lì	Yang Yin Yang	離	Rapid movement, radiance, the sun
	Zhèn	Yin Yin Yang	震	Excitation, revolution, division
	Xùn	Yang Yang Yin	巽	Gentle penetration, flexibility
	Kǎn	Yin Yang Yin	坎	Danger, rapid rivers, the moon
	Gèn	Yang Yin Yin	艮	Stillness, immovability
	Kūn	Yin Yin Yin	坤	Receptive energy, that which yields

1969). Substituting Yin and Yang in the analogy of continuous improvement and innovation allows for a broader and more complex characterisation of the relation of continuous improvement and innovation (Table. 31.2). Concerning the implications for change management it will not be enough to produce a simple $2 \times 2 \times 2$ -table. We need to explore the meaning these distinctions bring to the world. And then we are looking at the unity of the distinctions and the art of balancing.

Improvement of improvement and innovation of innovation are figures of intensification. Improvement of innovation and innovation of improvement are figures of counter-balance. We can think of a meta-level on which a certain paradigmatic or disciplinary set (Kuhn 1962) is either reinforced or an alternative set is applied. Reaching out for the third distinction,

- Qián: Innovating the innovation of innovation, and
- Kūn: Improving the improvement of improvement,

describe extremes;

Table. 31.2 The Bā Guà of change management

Ba Gua		Distinction	Meaning
	Qian	Yang Yang Yang	Innovating the innovation of innovation
	Dui	Yin Yang Yang	Improving the innovation of innovation
	Li	Yang Yin Yang	Innovating the improvement of innovation
	Zhen	Yin Yin Yang	Improving the improvement of innovation
	Xun	Yang Yang Yin	Innovating the innovation of improvement
	Kan	Yin Yang Yin	Improving the innovation of improvement
	Gen	Yang Yin Yin	Innovating the improvement of improvement
	Kun	Yin Yin Yin	Improving the improvement of improvement

- Lí: Innovating the improvement of innovation, and
- Kǎn: Improving the innovation of improvement,

describe symmetries.

There is no inert evidence that either extremes or symmetries are preferable in change management. The notion that more of the same creates more of the same could in a cybernetic sense be interpreted as a positive feedback that endangers the viability of a system.

Counter-balancing on the basis of reinforcement are

- Duì: Improving the innovation of innovation, and
- Gèn: Innovating the improvement of improvement,

Giving a direction to a balance are

- Zhèn: Improving the improvement of innovation, and
- Xùn: Innovating the innovation of improvement.

Practically we are looking on two different paradigmatic sets for continuous improvement and innovation. The combination as brought forward in the Bā Guà table allows for distinction, emphasis and sequence. This lays the foundation for a conceptual framework for change management that gives an inner structure to the practice of change management, for research, description and planning.

As a basic road map for an initial review of change management practices it may be as simple as to distinguish practices, models, methods and instruments of continuous improvement in contrast to practices, models, methods and instruments of innovation. In a second step it shall be interesting to apply the first set of improvement on the second set of innovation; we improve the innovation-toolbox,

Fig. 31.5 Generating systemic complexity



and then vice versa we innovate the improvement-toolbox. Six Sigma can be innovated and Rapid Prototyping can be improved.

31.3 Requisite Variety

At this point we may want to come back into the realms of systems thinking. When it comes to complexity in the context of viable systems Ross Ashby’s law of requisite variety” (1965) gives a good idea of the beneficial aspects of increased systemic complexity as brought forward in the Bā Guà. The law of requisite variety states that to control a system it is necessary to provide requisite variety, which is to say, more possible states than the system or the situation which is to be controlled, handled or influenced.

In generating systemic complexity we are referring to a Bā Guà and its three applications of the primary distinction. We could easily think of a fourth distinction or a fourth iteration, a fourth re-entry, however for the purpose of exploring the possibilities of combining eastern and western philosophy, science and thinking we come to a situation where the single, or shall we say, simple notion of change is enriched with a deeper complexity that allows to distinguish different compositions of continuous improvement and innovation.

Overall this provides a fruitful perspective supporting the practice of change management with regard to efficacy, sustainability and viability of change processes. And there is always another distinction to explore (Fig. 31.5).

31.4 Discussion and Conclusion

The beauty of the Yin and Yang approach to change is balance. Concentrating too much on either side, in this case either continuous improvement or innovation will result in imbalances and the disintegration of the company. Therefore continuous assessment of the state of the company and formulation of strategies to maintain the balance is the key to the sustainability in change management.

The management of change is systemically addressed in terms of requisite variety. Increasing variety absorbs complexity. The Yin and Yang of Change approach improves on efficacy, sustainability, and viability on the level of the system and the level of the change process. The Yin Yang-homeostasis is a desired outcome of the change which allows for sustainability and viability of the system. Yet, the Yin and Yang of Change approach is meant in equal terms to be applied within and for the change process as such. Efficacy and viability shall be qualities of the change effort in order not to fall short like we have seen with best practice approaches.

The systemic benefit of the Yin and Yang of change management lies in increasing systemic complexity. The challenge at hand lies with understanding this complexity and attributing practical meaning to it. This indicates two directions for further research, first towards theoretical understanding and second towards practical application in the field.

The first and greater challenge for the theoretical understanding is related to finding an adequate language for complexity. Since with semantics we enter the realms of tokens there is always the danger of losing complexity in language. Language tends to disguise the generic distinction that created world. We may want to look at an equivalent to the calculation of form that allows calculating with tokens.

Field and action research is the second, more practical research direction we are looking at. On the one hand it relates to the conceptual side of reviewing the change management toolboxes. Which are the paradigmatic models, methods and instruments of the Yin and Yang of Change approach which go with either continuous improvement or innovation and create the balance we are looking for? And what are the practical benefits of increasing complexity in change management and the change management toolbox? They are certainly not with the extremes of innovating the innovation of innovation and improving the improvement of improvement. More of the same is a recipe for failure. The other options allow for the art of balancing and enrich the paradigmatic approaches to change management.

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