

The Dao of Innovation: What European Innovators Can Learn from Philosophical Daoism¹⁾

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Abstract

A central question for managers in charge of innovation is to what extent creativity and innovation can be controlled and supervised, or whether they just have to be set free and allowed to take shape. In assessing this dilemma the authors conclude that there is a contradiction of action versus inaction on the personal level as well as a contradiction of control versus loss of control on the organizational level. What European innovators can learn from philosophical Daoism is an attitude that allows a process to just develop “naturally” and refrains from premature interference with the intention to permanently be in control. In business structures that judge everything according to its usefulness, i.e. profitability for the company, a look at the laid-back attitude of Daoism where usefulness and uselessness are relative qualities might relief the pressure on people to perform in a premeditated way. Innovation can be supported, but creativity cannot be forced. It can only be allowed to happen when control, interference, and action are balanced out with non-interference, and go-with-the-flow. This attitude is not an excuse for stressed-out managers to neglect their duty, but a time honoured worldview of one of the oldest civilizations in the world that can give them the sovereignty to “get out of the way” and let innovation happen.

Keywords: *Innovation, creativity, Daoism, organizational culture, leadership*

INTRODUCTION

Creativity of a person can be defined in a socio-cultural way as “the generation of a product that is judged to be novel and also to be appropriate, useful, or valuable by a suitably knowledgeable social group” (Sawyer 2012, p. 8). This definition shows that to be accepted as “creative” by others—typically experts in a field—the output of creativity must fulfil certain criteria such as usefulness or appropriateness. In many cases the socio-cultural definition

is used, since it also includes criteria that hint at how to measure creativity. So creativity is typically defined as an idea or solution which is both novel and potentially useful (Hennessey and Amabile 2010).

Research on individual creativity has shown that the creative process is typically not finished with the creative idea. Execution of the work is an essential part of the creative process, and often ideas emerge while people are working on a topic. This theory called “action theory” has led to a shift

of focus in creativity research from contemplation to action (Sawyer 2012). Some approaches such as the creative process of the US-American company IDEO (Kelley 2001) leave out any form of contemplation or incubation altogether. So on the one hand action is an important element of the creative process. On the other hand contemplation is still a vital part in creative work, as we will see when we examine the creative process in more depth.

Apart from the creativity of a person the creativity of organizations and especially companies has been the focus of research. Robinson and Stern (1998, p. 11) coined the term “Corporate Creativity” and say that a “company is creative when its employees do something new and potentially useful without being directly shown or taught”. This definition is in line with the definition of creativity of a person, but adds the element of self-initiative of the employees working at the company to it.

The central question in the light of this framework, however, is to what extent creativity and innovation can be controlled and supervised, or whether they just have to be set free and allowed to take shape. In assessing this dilemma the authors conclude that there is a contradiction of action versus inaction on the personal level as well as a contradiction of control versus loss of control on the organizational level.

On the one hand one way to enhance corporate creativity has been to promote the use of creativity techniques such as brainstorming or the morphological box in an organization and to install control mechanisms such as quality gates in innovation processes or employee suggestion schemes. Creativity techniques focus on generating more ideas by groups of employees and, thus, are similar to the action-based approach in individual creativity. The approach of using creativity techniques in companies is often taught in textbooks on innovation management, e.g.: “For creative output to be produced, individuals must be trained in the tools and techniques of problem solving and creativity” (Ahmed and Shepherd 2010, p. 65). The control mechanisms try to canalize and measure creativity (e.g. number of ideas per employee and year). This rather technocratic approach with a focus on methods and measurable results—helpful as it may be to steer incremental improvements—may lead to a

“culture of looking busy” on the personal level where contemplation is seen as “unproductive” and to a “culture of compulsive control” on the organizational level where the “right” method or process is given more weight than the desired result, namely creative ideas and innovative products.

On the other hand Mueller, Melwani and Goncalo (2011, p. 11) have found out that people have a “Bias against Creativity”. This means that individuals typically reject creative ideas because of the inherent uncertainty, and that probably also organizations reject creative solutions although they might explicitly state that they want them. From their findings they draw amongst others the conclusion “that if people have difficulty gaining acceptance for creative ideas especially when more practical and unoriginal options are readily available, the field of creativity may need to shift its current focus from identifying how to generate more creative ideas to identifying how to help innovative institutions recognize and accept creativity”. So current research approaches to corporate creativity focus more on leadership and organizational environment than on creativity techniques and control mechanisms. Here the focus is put on setting the right framework for creativity and leaving the rest to the self-initiative of intrinsically motivated employees, thus, increasing acceptance of creativity and leading to highly creative ideas and radically new products (see e.g. Amabile 1997, Puccio and Cabra 2010, Robinson and Stern 1998). From a managerial standpoint, however, these approaches seem to be out of control: They seem to foster procrastination and leave personal and corporate creativity to the blind forces of chance.

The authors offer philosophical Daoism as a fresh perspective on this dilemma. Hence, the aim of this paper is not to define a ready-to-use solution backed up by empirical data on its application, but to propose a new intellectual approach to deal with the described contradictions of personal and corporate creativity from which further research may be drawn. In the following the authors argue that action is a basic element of creativity, but that the main focus on action in both personal and corporate creativity is missing the point. On the contrary, action in creativity has to be balanced by a counterforce to make creativity work in both settings.

Furthermore the authors argue that control and loss of control have to be in an analogous balance. The authors of this paper noticed that this approach to creativity has certain parallels to central concepts in philosophical Daoism. These parallels are scattered among diverse research publications, but have not—at least not to the best of the authors' knowledge—been compiled and critically analysed. The concepts in question are *wuwei* (無為) and *ziran* (自然). In order to show the heuristic value of these concepts, the following short introduction to some aspects of Daoist philosophy explains their original meaning as well as their implications for the search for innovation.

DAOIST PHILOSOPHY

What we call Daoism originates from one of the most creative periods in Chinese intellectual history, namely the so-called Golden Age of Chinese Philosophy in the late Zhou Period from the sixth to the third century B.C. It was only defined as one of the “Six Schools” by the historian Sima Tan in the second century B.C. and is rather a group of thinkers who emphasize the importance of going with the flow of the energy (*qi* 氣) that moves all things along their proper course instead of interfering with this natural development of things by constantly distinguishing between alternatives and judging between right and wrong. Among its textual basis are a text commonly known as the *Daodejing* (Classic of the Way and of Power) and the *Zhuangzi*, a classic named after the philosopher who is seen as the author of at least the Inner Chapters of the text (Zhuang Zhou, commonly called Zhuangzi, who lived around the fourth century B.C.).

Philosophical Daoism has a rather individualist nature and was only institutionalized with the later founding of schools and the branching out into religious Daoism that integrates a variety of old Chinese folk beliefs. The early Daoist philosophical thinkers agreed that there is a natural order in the universe and that rather than constantly trying to interfere with this order humans should study this natural flow, path or principle that they call the “way” (*dao* 道, hence the name for the group of thinkers) and then go with the flow. It is best to

cultivate the spontaneous energies inherent in all manifestations of the way and “travel” with it. Since this “travelling” or “rambling” occurs without a fixed destination, Daoist philosophy was not immediately furthering the political interest of Chinese rulers, i.e. those who employed philosophers as consultants or decided about the “usefulness” of philosophical schools. Thus Daoism was not in high demand in the official administration and rather seen as a private intellectual pastime (see e.g. Graham 1989, Kirkland 2004).

Core concepts of Daoist thinkers are *wuwei* and *ziran*. According to Cooper (1973, p. 73) *wuwei* “is the doctrine of inaction or non-action, but only a superficial outlook interprets it as *laissez-faire*, in the sense of indifference, for the Daoist is not indifferent, but should be totally committed to life. If any translation should be attempted, possibly ‘non-interference’ or ‘letting-go’ is the best.” *Wuwei* is a concept that is usually contrasted with *wei* (為) which is intentional or deliberate action. Deliberate action in this context has the connotation of forcing developments in a certain, sometimes unnatural, direction. *Wuwei* as the absence of intentional or deliberate actions in contrast is seen as the ability to let things develop in their natural way and adjust to circumstances adequately without being an obstacle. This attitude is guided by the conviction that there is an ordering force in nature and that it is not necessary or even counterproductive to try and force developments in a certain direction. The reason for things to develop in a certain way is that this is “natural”. The Chinese word for this is *ziran* which literally translates into “so-of-itself”, i.e. the way a thing is when it follows its internal essence (Slingerland 2003).

Those who subscribe to this understanding of the world do not see the step-by-step pursuit of a clearly defined course of actions that leads to a predefined goal as the adequate tool to handle the challenges of the ever-changing world. It is rather spontaneous action which responds to situations that helps to progress. This progress is not seen as a planned endeavour following pre-determined rules or judgmental thinking, it is rather the individual acting upon instinct and a thorough reflection of the situation. The individual needs a certain expertise, like the cook Ding who is given as an example

of someone who intuitively knows how to carve an oxen because he has trained his skills to the point where he no longer needs to consciously plan and deliberately decide every single cut but rather let his actions run their course (Graham 1991, p. 63–63). His mind has reached the stage where it is rambling without a clearly visible purpose, but through this process comes to a useful outcome. In this mindset individuals “spread their attention over the whole situation, let its focus roam freely, forget themselves in their total absorption in the object, and then the trained hand reacts spontaneously with a confidence and precision impossible to anyone who is applying rules and thinking out move.” (Graham 1991, p. 6). In order to connect this approach to the process of innovation, it is necessary to take a deeper look into the creative process as such.

THE CREATIVE PROCESS

Typically individual creativity is described as a process model with several more or less distinct stages. Already in 1926 Graham Wallas in his book *The Art of Thought* presented a five-stage process containing the stages preparation, incubation, insight, verification and elaboration (Wallas 1926 cited in Sawyer 2012). Sawyer (2012) analyses nine different process models from Wallas’ model to the IDEO model by Tom Kelley (2001). Based on this comparison he proposes an eight-stage process by adding to Wallas’ model a stage at the beginning to “find the problem” and by splitting the preparation stage into “acquire the knowledge” and “gather related information” and the insight stage into “generate ideas” and “combine ideas”.

The process models have been criticized for giving the impression that creativity is a one-time linear process (Sawyer 2012). In reality creativity is not a linear process but rather a cycle with mini-insights and experimentation which leads to further problems which have to be solved by a similar cycle again. In this cycle convergent thinking and divergent thinking typically alternate. This continues until either the person trying to be creative gives up and turns towards other activities. Or a final verification leads to the conclusion that the problem is now solved respectively the insight has been

realized.

Seven of the nine process models analyzed by Sawyer (2012) contain an incubation stage. Sawyer’s model also includes such a stage. Incubation can be described as “an unguided unconscious process” (Sawyer 2012, p. 97) from which the creative idea derives. It happens after preparation and precedes the insight. The unconscious process of incubation typically takes place when one stops working on the related problem, i.e. during idle time or work on an unrelated task. However incubation only occurs if it is preceded by conscious work in the preparation stage and followed by conscious work in the verification stage.

A graphic description of incubation is given by the mathematician Henri Poincaré who could not solve a tricky mathematical problem until he got away from his desk and went on an excursion: “Just at this time I left Caen, where I was then living, to go on a geological excursion under the auspices of the school of mines. The changes of travel made me forget my mathematical work. Having reached Coutances, we entered an omnibus to go some place or other. At the moment when I put my foot on the step the idea came to me, without anything in my former thought seeming to have paved the way for it [...]. I did not verify the idea; I should not have had time, as, upon taking my seat in the omnibus, I went on with a conversation already commenced, but I felt a perfect certainty. On my return to Caen, for conscience’ sake I verified the result at my leisure.” (quoted in Ghiselin 1985, p. 26).

According to Sawyer (2012) there is experimental evidence which supports the incubation effect although it is not at all clear how it works since incubation is very hard to test under laboratory conditions. Csikszentmihalyi (1997, p. 98) describes incubation in almost mystical terms: “Because of its mysterious quality, incubation has often been thought the most creative part of the entire process. The conscious sequences can be analysed, to a certain extent, by the rules of logic and rationality. But what happens in the ‘dark’ spaces defies ordinary analysis and evokes the original mystery shrouding the work of genius: One feels almost the need to turn to mysticism, to invoke the voice of the Muse as an explanation.”

Although there are still many open questions

concerning incubation the following mechanisms seem to be at work according to the current status of psychological experiments (Sawyer 2012):

Rest

Working on a problem which requires a creative solution is mentally demanding and exhausting. Thus the mind needs some idle time to relax and recover. The physicist Freeman Dyson describes the importance of idle time in creative activities as follows: “I am fooling around not doing anything, which probably means that this is a creative period, although of course you don’t know until afterward. I think that it is very important to be idle.” (quoted in Csikszentmihalyi 1997, p. 98).

Selective Forgetting

Problems which require creative solutions often contain implicit clues which fix the mind to an incorrect or unfavourable solution. Incubation loosens the attachment of the mind to this solution and, thus, makes way for the exploration of other, more fruitful approaches. Koestler (1967, p. 104) says that the “act of discovery has a disruptive and a constructive aspect. It must disrupt rigid patterns of mental organization to achieve the new synthesis.” Later on he also argues: “To acquire a new habit is easy, because one main function of the nervous system is to act as a habit-forming machine; to break out of a habit is an almost heroic feat of mind or character. The prerequisite of originality is the art of forgetting, at the proper moment, what we know.” (Koestler 1967, p. 190).

Spreading Activation and Opportunistic Assimilation

Creativity consists of the combination of ideas from different fields. For example the mathematician Henri Poincaré observed the following: “Among chosen combinations the most fertile will often be those formed of elements drawn from domains which are far apart. Not that I mean as sufficing for invention the bringing together of objects as disparate as possible; most combinations so formed would be entirely sterile. But certain among them, very rare, are the most fruitful of all.” (quoted in Ghiselin 1985, p. 26). Incubation allows the mind to gradually activate the necessary concepts in its

network for combination (“Spreading Activation”). Furthermore it allows for the possibility to randomly encounter a stimulus in one’s everyday activities which leads to a new combination (“Opportunistic Assimilation”). Koestler (1967, p. 35) named this mechanism “Bisociation”: “I have coined the term ‘bisociation’ in order to make a distinction between routine skills of thinking on a single ‘plane’, as it were, and the creative act which [...] always operates on more than one plane. The former may be called single-minded, the latter a double-minded, transitory state of unstable equilibrium where the balance of both emotion and thought is disturbed.” In science this effect of “Opportunistic Assimilation” has also been termed “Serendipity”—the combination of a fortunate accidental experience and sagacity to get a creative idea. The term was originally coined by the British author Horace Walepole in the 18th century after the fairytale *The Travels and Adventures of the Three Princes of Serendip*. Serendipity is claimed to be a significant source of discovery by many scientists, amongst them some Nobel laureates (Merton and Barber 2006).

Incubation may also be related to the phenomenon of “mind wandering”—the thoughts drift away from the task at hand to something unrelated, an action comparable to daydreaming—with the hypothesis of Sawyer (2012, p. 86) “mind wandering serves to provide us with moments of ‘mini-insights’ that contribute to creative thought” waiting to be tested.

In effect the incubation stage is a controlled loss of control in individual creativity because one never knows which connections and combination will be created by one’s mind or if any useful combination is created at all. Kelley (2001, p. 86) summarizes this finding and provides us with a first link between individual creativity and East Asian systems of thought: “There is a Zen-like force here at play: The less you strive to control ideas and insist on credit for those that are yours, the more good ideas you’re likely to have—and see implemented.” The Zen-like quality he refers to here is the empty mind (mushin 無心), a core concept in Zen-Buddhism that is very often likened to the Daoist concept of non-inference (wuwei 無為) and spontaneity (ziran 自然).

“Mind wandering” is what is called “going ram-

bling without a destination" in *Zhuangzi*. The unconscious process of incubation in which the mind might be idle, detached, forgetful and might thus accidentally stumble unto a solution to a problem resembles the stage which the sage has reached by letting his mind fly: "The sage does not work for any goal, does not lean towards benefit or shun harm, does not delight in seeking, does not fix a route by a Way, in saying nothing says something and in saying something says nothing, and roams beyond the dust and grime." (Graham 1991, p.59). What *Zhuangzi* describes here is a stage in which the mind relaxes and stops focusing on one goal to intentionally strive for the solution. Rather "problems are solved (which, literally, means 'loosened') when tensions are eased and one is able to understand the true nature of a thing [*ziran*], hence 'sleeping on it', or the sudden flash of intuition which comes when the rational mind ceases its activity and a spontaneous recognition of reality occurs." (Cooper 1973, p. 73–74).

CORPORATE CREATIVITY

In organizations creativity typically is a team effort. The picture of the "lone inventor" who works in his laboratory on his own without communication and cooperation with others is largely a myth. Hence, for corporations one question which typically arises is how to create an innovative environment and set the right incentives to stimulate the creativity of the employees. In Germany these discussions are often held under the headline of "Innovationskultur" ("innovation culture"), a special form of organizational culture (see e.g. Jaworski and Zurlino 2009, Meyer 2011).

In her many experiments Amabile (1996, p. 107) has proven the "Intrinsic Motivation Hypothesis of Creativity": "the intrinsically motivated state is conducive to creativity, whereas the extrinsically motivated state is detrimental". Intrinsic motivation means doing something for its own sake—in contrast to extrinsic motivation which means doing something to get a reward or avoid punishment. Rewards are only conducive to creativity when they are less salient than intrinsic aspects of motivation and when they are given in accordance with performance. Constraints in as-

pects of task engagement have negative effects on creativity. Overall her findings show: "There is a consistent positive relationship between expressed interest in an activity and actual creativity of performance" (Amabile 1996, p. 171).

Amabile's findings are in accordance with the findings of Csikszentmihalyi (1997) concerning the creative personality. In his study of video-taped interviews of ninety-one exceptionally creative individuals Csikszentmihalyi (1997) found out that although these creative persons differ in many ways they have one thing in common: They are all intrinsically motivated concerning their creative fields. This means that creative people love what they are doing and are not driven by the hope for fame or the promise of money. Csikszentmihalyi (1997, p. 110) called this experience the flow in creativity: "This optimal experience I have called *flow*, because many of the respondents described the feeling when things were going well as an almost automatic, effortless, yet highly focused state of consciousness". The flow in creativity and other activities is achieved when the task at hand has clear goals, provides immediate feedback, requires a balance between challenges and skills and can be done under exclusion of distractions. The flow in creativity leads to a merging of action and awareness, the forgetting of self, time and surroundings and is generally seen as an autotelic activity meaning an activity which provides joy for its own sake. In *Zhuangzi* the equivalent of the flow is the *flight* which carries the mind above the restricted viewpoints of the worldly and makes the journey of life an effortless rumble. The mind follows a natural way and adjusts spontaneously (*ziran*) to any situation (Graham 1991, p. 43). The inventor Jacob Rabinov describes the joy of inventing this way: "You invent for the hell of it. I don't start with the idea, 'What will make money?' This is a rough world; money's important. But if I have to trade between what's fun for me and what's money-making, I'll take what's fun." (quoted in Csikszentmihalyi 1997, p. 107).

Robinson and Stern (1998) used these findings (and other findings with similar results) to develop a framework for "Corporate Creativity". They conclude that for corporate creativity the work environment is the dominant factor, not the individual talent: "A bad system will beat a good person every

time” (Robinson and Stern 1998, p. 29). The framework for “Corporate Creativity” identified the following six factors which improve the work environment for creativity in a company (Robinson and Stern 1998):

- *Alignment*: The employees have to know which types of ideas are valued by the company. For this there has to be clarity about the key goals of the company, top management commitment to initiatives which promote them, and accountability for actions which affect these initiatives.
- *Self-initiated activity*: Since intrinsic motivation is conducive to creativity, the majority of creative acts in companies are self-initiated and, thus, unanticipated by management. For this reason leaders should promote self-initiated activity.
- *Unofficial activity*: Many new ideas are strange and repellent at first and need some time to show their full potential. For this reason new ideas have to be removed from corporate control in the beginning.
- *Serendipity*: Serendipity combines a fortunate accident with sagacity. Serendipity is also described as “Opportunistic Assimilation” by Sawyer (2012) (see above).
- *Diverse stimuli*: To make serendipity work employees need to experience fortunate accidents, i.e. they need to be exposed to new and diverse stimuli.
- *Within-company communication*: To stimulate knowledge exchange and, thus, increase serendipity there have to be horizontal communication channels across functional units. To turn self-initiated and unofficial activities into official R&D-projects the company needs vertical communication channels from bottom to top.

Many of these factors of work environment have strong implications for leadership. Alignment requires clear communication by the management and a commitment of the management to the communicated goals. Self-initiated and unofficial activity of employees and the use of the serendipity principle mean that managers have to give up some

of their control and power to make decisions. Furthermore these two approaches require that employees have greater freedom in choosing their activities and the stimuli they encounter. Last but not least, within-company communication demands incentives for cross-functional cooperation for vertical communication and managers with a high tolerance for ambiguity and the ability to assess and endure certain business risks for horizontal communication.

Puccio and Cabra (2010) found many corresponding results in their overview on organizational creativity concerning work environment (especially in organizational culture and climate) and leadership (especially transformational leadership). Amabile (1997) found similar results in her Components Theory of Organizational Creativity and Innovation. Furthermore this approach has some overlaps with the approach by Pinchot and Pellman (1999) which focuses on the promotion of intrapreneurs (short for *intracorporate entrepreneurs*), i.e. “people who turn ideas into realities inside an organization”. They give similar advice for improving the climate for innovation of an organization.

Parts of the leadership approach behind “Corporate Creativity” have already entered mainstream management literature. For example Sutton (2007, p. 134) calls this approach “Managing by Getting out of the Way” and gives the advice to “Encourage People to Ignore and Defy Superiors and Peers” under certain circumstances. Meyer (2011, p. 173) refers to it as “catalytic leadership” (“katalysatorische Führung”) in analogy to chemistry. He sees the new role of leadership not in setting rules and defining processes but in creating an organizational environment which enables employees to be creative and which builds on their intrinsic motivation. Even Lafley and Charan (2008) who in their description of the innovation process at Procter and Gamble put a strong emphasis on control conclude that a manager’s job during innovation is communication rather than control.

In effect the approach introduced by Robinson and Stern (1998) is also a controlled loss of control because a manager never knows which employee creates which new and possibly useful idea or if any new and possibly useful idea is generated at all.

Sawyer (2012, p. 247) concludes his research on group creativity with the following remark providing us with a first link between corporate creativity and East Asian philosophy: “The best manager is one who can create an environment in which free collaboration can flourish, and this requires an almost Zen-like ability to control without controlling.”

This manager displays the qualities of the enlightened ruler that is described in *Zhuangzi*: “When the enlightened king rules, his deeds spread over the whole world, but seem not from himself. His riches are loaned to the myriad things, but the people do not depend on him. He is there, but no one mentions his name. He lets things find their own delight.” (Graham 1991, p. 96). In a similar vein the *Daodejing* states in chapter 17: “The existence of the leader who is wise is barely known to those he leads. He acts without unnecessary speech, so that the people say, ‘it happened of its own accord.’” (Rosenthal 2013). The enlightened manager retreats to the background, gets out of the way and provides the environment in which creative people can thrive without constant dependence upon their supervisor.

CREATIVITY AND DAOISM

In the Daoist perspective creativity can be understood as a tension between two opposing forces—the yin (陰) and the yang (陽). Yin, the negative, dark, and female element and yang, the positive, light, and male element are the two great forces in the universe that are mutually interdependent and constantly shifting their balance. They are not exclusively Daoist principles, but rather remnants of very old Chinese explanations of the working of the universe and nature. They alternate in the flow of energy and play an important role in Chinese cosmology. Yet, yin and yang are more than a mere dualistic reflection of independent pairs of opposites. Rather this concept includes a “multiplicity of relations” between the two elements which contains contradiction and opposition, interdependence, mutual inclusion, interaction or resonance, complementary and mutual support as well as change and transformation (Wang 2012, p. 7 ff.). Due to their dynamic and interdependent nature, they can be

used as symbols in a so-called value square which displays this idea of a dynamic balance or tension between two values.

The value square (“Wertequadrat”) was developed by Helwig (1967) with the aim of describing different characters. It was also used by Schulz von Thun (1998) and Romhardt (2000) to show dialectical structures in the intervention into communication and into organizational knowledge. In Schulz von Thun’s definition (1998, p. 40, own translation) “in the value square the notion of an optimum ledger has been abandoned and replaced by the notion of a dynamic balance [...]. The notion of a yin-yang-relation of the upper values is also appropriate: They permeate each other, and each contains already a trace element of its opposite pole.” But nevertheless the value square is a Western concept and its origin can be traced back conclusively in Western philosophy (Schulz von Thun 2015).

The value square is constructed as follows (see fig. 1): The upper line shows the positive tension of the two values which together constitute the desired effect. The values can be understood as dialectical opposites which complement each other and, thus, have to be balanced. The diagonals of the square represent the contrarian opposites between one value and its negative appearance. The vertical lines display the negative exaggeration of the value when one value is not equilibrated by the complementary value of the upper line. The lower line shows the overcompensation of the negative values when one goes from one extreme of negative exaggeration to the other extreme (Helwig 1967, Schulz von Thun 1998). According to Schulz von Thun (1998) the value square can also be seen as a development square (“Entwicklungsquadrat”), since it offers the possibility to choose a contrarian opposite as a developmental goal when in a position of negative exaggeration without falling into the trap of overcompensation. So a developmental path typically goes from a negative value along the diagonal line to the contrarian opposite.

The value square of the creative process of individuals can be constructed as a positive tension of action and inaction or *wei* and *wuwei* (see fig. 2). While action is needed to find problems, seek information, try out ideas and implement solutions, inaction is needed as incubation where the mind

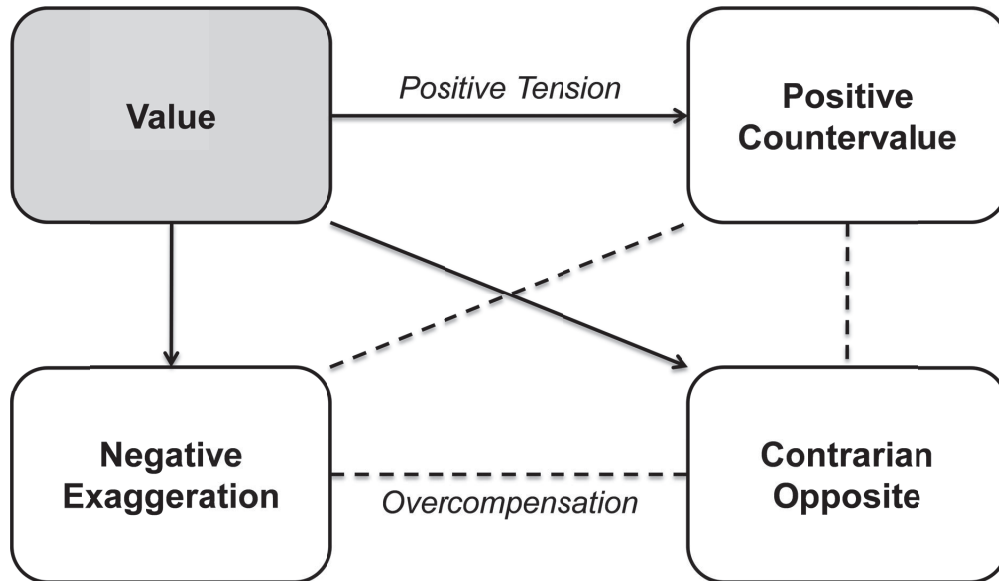


Figure. 1: The Value Square (Schulz von Thun 1998, p. 41, own translation)

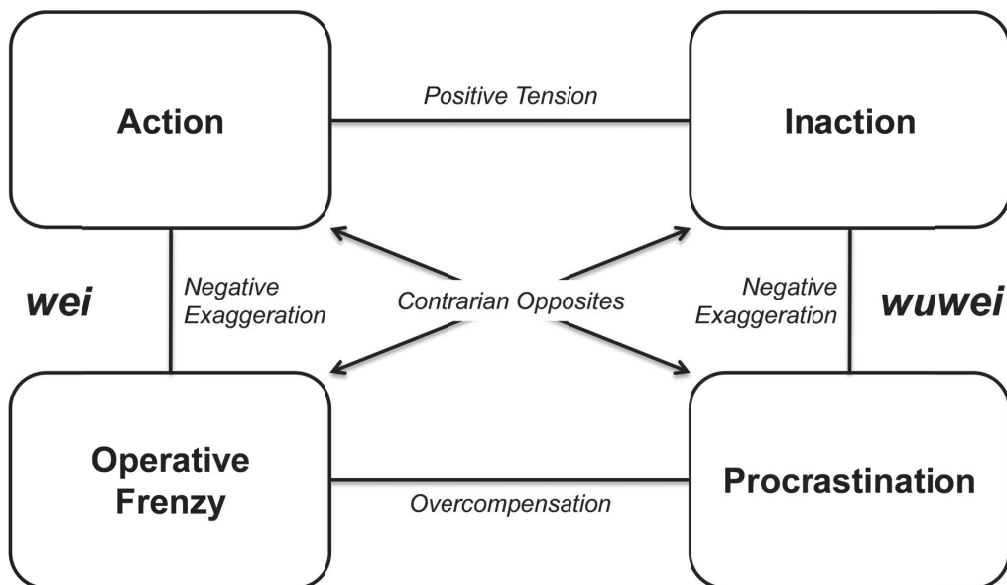


Figure. 2: Tension of Action and Inaction in the Creative Process

can rest, selectively forget false clues, activate other regions of its network and generate new connections by opportunistic assimilation. When action respectively the *wei*-aspect of creativity is not balanced it can lead to operative frenzy where new insights or mini-insights cannot be formed due to day-to-day stress. In this setting contemplation is seen as “unproductive” and people are incentivized

to make the impression of operating at full capacity. When inaction or the *wuwei*-aspect is exaggerated it turns into procrastination where the verification and elaboration of new ideas is postponed indefinitely. So the developmental path of a workaholic with no time for creativity would be a forced period of rest for incubation, while the path for a lazy or indecisive person would be prototyping and trying

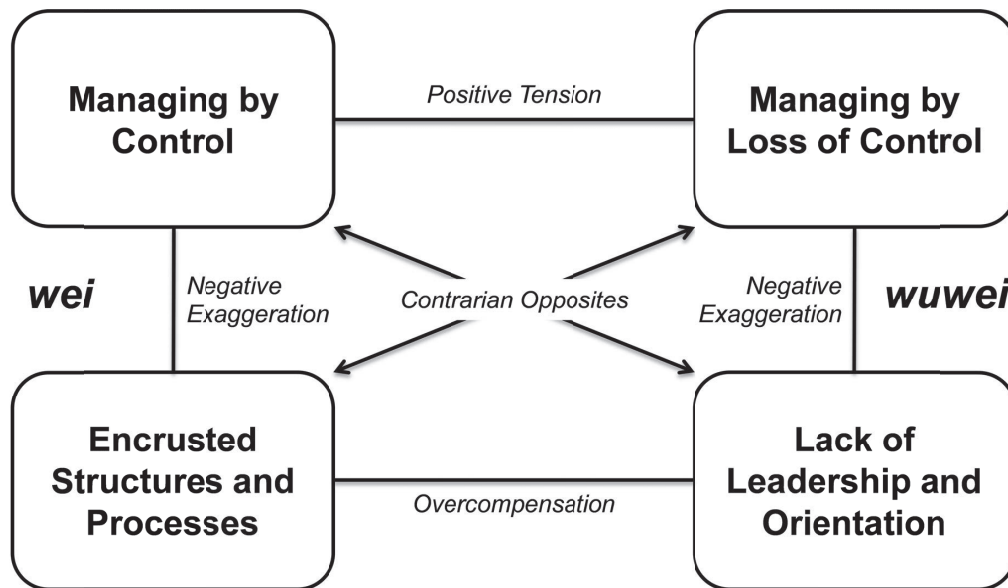


Figure 3: Tension of Control and Loss of Control in Corporate Creativity

out some of her “provisional” ideas to move forward with them and possibly improve them. In total the individual creativity can be described as a concept in which *wei* and *wuwei* alternate and react to each other like *yin* and *yang*, i.e. a balance of action and inaction, where active and passive periods are balanced and one does not “strive to control ideas” (Kelley 2001).

A work environment in which contemplation is viewed as unproductive can lead to an organizational culture which the authors call a “Culture of Looking Busy”. In this culture people are incentivized to make the impression of operating at full capacity and start to do things simply for the sake of doing things to keep up the appearance of being productive. This view seems to have prevailed in Western societies to a large extent, as Claxton (2000, p. 4) has observed: “The individuals and societies of the West have rather lost touch with the value of contemplation. Only active thinking is regarded as productive. Sitting gazing absently at your office wall or out of the classroom window is not of value. Yet many of those whom our society admires as icons of creativity and wisdom have spent much of their time doing nothing.”

An environment in which employees always have to make sure they look busy is probably not a creative work environment. In such an environ-

ment it is advisable to search for a retreat for incubation: a nearby café or a bench in the park—or maybe even a new job (Sawyer 2013, p. 114). Furthermore the personal time management has to provide time to think and reflect (Claxton & Lucas 2008, p. 128). The classical time management matrix by Covey (2004, p. 150 ff.) lacks such a category as it only includes pressing problems and crises (urgent and important), visible interruptions of day-to-day business (urgent but unimportant), preventive activities (not urgent but important) and trivia and timewasters (neither urgent nor important). Thus, this matrix only deals with tasks and problems which are already known, but contemplation and creativity often deal with tasks and problems which are up-to-now still unknown. So Meyer (2011, p. 200 ff.) advises to add two further categories to the classical matrix of time management. Development tasks offer time for idea generation for existing problems. This can lead to better solutions for important tasks. Research tasks are activities to get new inspiration and time for contemplation which are not related to current problems or other tasks. Time for development and research tasks should be blocked in advance and preferably spend away from the workplace.

Corporate creativity can be understood as a positive tension between managerial control and

managerial loss of control (see fig. 3). Managing by control in this model represents the *wei*-aspect of corporate creativity which may develop into rigid and encrusted structures and processes when it is employed in a similar way as in a production environment and is, thus, negatively exaggerated—a state the authors referred to as “culture of compulsive control” in the introduction. Hence, a developmental path to the contrarian opposite of managing by loss of control—or “managing by getting out of the way” as described by Sutton (2007, p. 134)—may be appropriate for companies with encrusted structures and processes in innovation. This represents the *wuwei*-aspect of corporate creativity where employees are given enough freedom to follow their intrinsic motivation and, thus, control over the creative process is lost to a certain extent. Of course this state has to be balanced by a certain extend of control so that it will not transform into a laissez-faire state with a lack of leadership and orientation for the employees, the negative exaggeration of managing by loss of control. In total the equilibrated effect of the two values could be described as a controlled loss of control or the “ability to control without controlling” mentioned above.

Some of the guidelines of corporate creativity have already been transformed into practical approaches by companies. The following examples show how companies try to implement “Managing by Loss of Control” (Meyer 2011, Miller & Wedell-Wedellsborg 2013, Pillkahn 2011, personal conversation with participants in our innovation workshops):

- *Discretionary Time*: The researcher can spend a certain percentage of working time to conduct research of his own accord (e.g. 20 % rule at Google, 15 % rule at 3M)
- *Creative Budget*: The researcher gets a budget without any constraints concerning spending (e.g. Fellow Program at Intel).
- *Skunkworks Projects / Stealth Innovation*: Projects are conducted outside of the organizational control mechanisms (e.g. Development of BMW X5, Development of Apple MacIntosh). In Germany these projects are sometimes called “U-Boot-Projekte” (“Submarine projects”).
- *Creative Projects*: Researchers are allowed to

conduct a project of their own choice for a limited timeframe. This approach can be used in times of low order intake.

- *Tender for Innovation Projects*: Employees are not assigned to R&D-projects, but interested employees can apply for advertised projects.

As can be seen these measures emphasize the role of the employee and lead to decentralized decisions by the researcher. In doing so the measures support self-initiated and unofficial activities and facilitate diverse stimuli and serendipity.

CREATIVITY AND THE CONCEPT OF *BA*

The two value squares of individual and corporate creativity can also be related to the concept of “*ba*”. The Japanese word “*ba*” translates as “place”. Nonaka & Konno (1998) understand *ba* as a shared space in an organization where knowledge creation is fostered. So *ba* is more than a physical space and also includes virtual spaces and mental spaces. The corresponding framework for knowledge creation is based on the distinction of explicit and tacit knowledge. Explicit knowledge can be formalized and easily communicated, while tacit knowledge is embodied, context-specific and hard to communicate (Nonaka & Takeuchi 1995). The concept of tacit knowing goes back to Polanyi (1983, p. 8) who observed that “we can know more than we can tell”.

Knowledge creation is based on four types of knowledge conversion (also known as SECI model): Socialization (conversion of tacit knowledge into tacit knowledge), externalization (conversion of tacit knowledge into explicit knowledge), combination (conversion of explicit knowledge into explicit knowledge) and internalization (conversion of explicit knowledge into tacit knowledge) (Nonaka & Takeuchi 1995). Knowledge creation depends on the creation of enabling contexts or *ba* which foster relationships between individuals or groups of an organization to unleash tacit knowledge (von Krogh, Ichijo & Nonaka 2000). The four types of knowledge conversion of the SECI model can be related to four types of *ba* (Nonaka & Konno 1998, p. 42): Socialization requires “Originating *ba*” with face-to-face experiences to share tacit knowledge. For externalization of tacit knowledge “Interacting

ba” with peer-or-peer communication is needed. “Cyber *ba*” facilitates group-to-group collaboration using information technology for combination of explicit knowledge. Finally “Exercising *ba*” offers the opportunities for on-the-site learning experiences which lead to internalization of knowledge.

Of course, corporate creativity is based on a functioning cycle of knowledge creation. In the model of Robinson & Stern (1998) within-company communication can only work if enabling contexts for vertical and horizontal knowledge sharing are established. Diverse stimuli within an organization to facilitate serendipitous connections and discoveries only take place if interactions between individuals and groups are allowed and encouraged. Our framework of creativity can be especially linked to originating *ba* and interacting *ba* which are directly related to individual and corporate creativity. Originating *ba* is the primary *ba* where individual interactions are facilitated involving “capturing knowledge through physical proximity”. Interacting *ba* is the place for collective interaction, i.e. “for dialogue where people engage jointly in the creation of meaning and value” (Nonaka & Konno 1998, p. 47). So interacting *ba* is the place where “Initiators (conceptual leaders) are challenged to pursue their ideas” (Nonaka & Konno 1998, p. 47).

But these two types of *ba* only establish the active and interactional aspects relevant for knowledge creation. For creativity we need to balance these two types with one *ba* allowing for inactivity or incubation and one *ba* allowing for self-initiated and unofficial activity. We call those two types “Incubation *ba*” and “Greenhouse *ba*”. Incubation *ba* is a context which enables individuals to retreat from the current problems and allows for incubation. This doesn’t necessarily mean that they are inactive, only that they don’t work on their current problem. Incubation *ba* and originating *ba* complement each other as originating *ba* delivers valuable tacit input for idea creation, e.g. “direct interaction with suppliers and customers” or “tacit knowledge by walking around inside the company” (Nonaka & Konno 1998, p. 43). Greenhouse *ba* is a space where individuals are allowed to pursue their own ideas and develop them into presentable (explicit) concepts without supervision. So greenhouse *ba* complements interacting *ba* as interacting *ba* provides

“techniques to help express one’s ideas or images as words, concepts, figurative language [...] and visuals” and to transform “the tacit knowledge of customers or experts into readily understandable forms” (Nonaka & Konno 1998, p. 44).

CONCLUSION

What European innovators can learn from philosophical Daoism is an attitude that allows a process to just develop “naturally” and refrains from premature interference with the intention to permanently be in control. In business structures that judge everything according to its usefulness, i.e. profitability for the company, a look at the laid-back attitude of Daoism where usefulness and uselessness are relative qualities might relieve the pressure on people to perform in a premeditated way. “Deriving usage out of uselessness” is a Daoist approach to the world that asks people to change their way of thinking if an idea does not work instead of giving it up altogether. This approach, however, needs the scope for personal development and the permission to potter about without being exposed to control and instant judgment of the results. Training individuals in the tools and techniques of problem solving and creativity as the common approach in innovation management is certainly necessary, but as the saying goes “a fool with a tool is still a fool.” In the end it is the intellectual accomplishment of a creative mind that produces innovation. This process can be supported, but creativity cannot be forced. It can only be allowed to happen, and it happens best in an environment that invites the mind to “ramble without a destination” and thus enter the stage of what Csikszentmihalyi calls the flow. Managers can allow this to happen when they balance out *wei* (control, interference, action) with *wuwei* (non-interference, go-with-the-flow) in dealing with people and teams in the organization they expect to come up with innovative ideas. Maybe the knowledge that this attitude is not an excuse for stressed-out managers to neglect their duty but a time honoured worldview of one of the oldest civilizations in the world can give them the sovereignty to “get out of the way” and let innovation happen.

NOTES

- 1) Based on a paper presented by the authors at the 30th Annual Conference of the EAMSA, Duisburg in 2013. All Chinese words and names as well as concepts of Chinese origin are transcribed in Hanyu Pinyin (a 20th century innovation that standardized the rendering of Chinese words in Roman letters). For Japanese the internationally used Hepburn transcription system is employed.

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